Strategies used by primary school students to complete cloze passages

Fadillah Binte Mohamed
Juliana Binte A Jamil

Casuarina Primary School,
Singapore

Abstract

The study reported here examined the strategies employed by three successful and three less successful Primary 5 learners as they completed a cloze passage. The study gave insights into what readers did to make sense of what they read and what they did when they did not understand the passage. The findings showed that both the successful and less successful learners employed a similar repertoire of strategies. However, a closer examination of the strategies showed that there were some differences in their strategy use. The successful learners were more strategic and purposeful in their strategy use than the less successful learners.

Introduction

The authors were aware that learners process their reading in different ways and that not all learners are able to process their reading as successfully as others. In schools, they often encountered students who had difficulties completing cloze passages that other students could complete with great ease. The authors believed that both the successful and less successful learners made use of reading strategies to make sense of what they read. However, other than knowing their performance (good or poor) based on their scores in completing cloze passages, not much was known about the strategies that these two different groups of learners employed to complete cloze passages. The authors believed that by making the learners' thinking 'visible', they would be able to gain insights into the strategies that these learners used that resulted in them being successful or less successful in completing cloze passages.

Literature Review

This section reviews the literature on learning strategies, reading comprehension and cloze passages or procedures.

Learning Strategies

Researchers have come up with many different definitions of what are considered learning strategies. O'Malley and Chamot (1990) describe learning strategies as special ways of processing information that enhance comprehension, learning, or retention of the information. Wenden and Rubin (1987) refer to strategies as the learning behaviours that learners engage in to learn and regulate learning, and their knowledge of the strategies that they use. Cohen (1998) defines

learning strategies as learning processes which learners consciously select. According to Cohen (1987) learning strategies also span a wide range of activities, which include how readers process a text, how writers generate a text and how vocabulary is learned initially and subsequently retrieved. The choice of strategies that learners use depends on the type of knowledge required for a given task (Bialystok, 1978). It is the learners' ability and control of their learning strategies that discriminate successful learners from the unsuccessful or the less successful ones. Learner strategy research is driven by the assumption that successful learning is attributed to the use of particular sets of cognitive and metacognitive behaviours.

The large body of research on learning strategies seems to have a common objective, that is, to offer ways to remediate the strategies of unsuccessful language learners (Vann & Abraham, 1990). It is assumed that once the strategies of successful learners are identified, they can be taught to the less successful learners to enhance their learning (Rubin, 1975). In this way, knowledge of these better strategies used by the good learners will benefit the less successful learners.

Reading Comprehension Strategies

Learning strategies relate to a wide range of activities including reading comprehension. A literature review of research on reading comprehension strategies revealed that it is framed within the premise of cognitive theory. In cognitive theory, language comprehension is generally viewed as consisting of active and complex processes in which individuals construct meaning from aural or written information (Richards, 1983, cited in O'Malley & Chamot, 1990). In order to construct meaning from written information, readers employ a series of actions known as reading strategies (Garner, 1987). According to Block (1986), comprehension strategies that readers employ are indicators of how they conceive a task, what textual cues they attend to, how they make sense of what they read and what they do when they do not understand. Therefore, reading comprehension strategies are the cognitive and metacognitive *processes* which the reader selects in order to construct meaning from a written text. Although reading strategies have much in common with learning strategies, it is the readers' purposeful use of these learning strategies to understand and remember a text better that turn these strategies into reading strategies.

Reading Theory

Current theory on reading, which is very much influenced by the schema theory (Anderson & Pearson, 1984), views reading comprehension as an active, interactive and constructive process rather than a mastery of isolated subskills. Thus, during reading, a reader engages in a variety of mental processes, generating a model that provides the best possible fit to the data perceived to be coming from the text combined with the existing knowledge or schemata of the individual reader. Therefore, when there is a mismatch between new information and the reader's existing knowledge (schemata), gaps in comprehension occur and special efforts need to be made by the reader to comprehend the new information encountered in the text. These efforts made to understand the text are called reading strategies. These strategies are consciously selected for a specific purpose and can be controlled and adjusted by the reader (Irwin, 1991). Johnson (1998) refers to comprehension skills as strategies a reader uses to construct meaning and retrieve information from a text and likens it to thinking skills that can be broken down into steps and taught explicitly to poor readers. Therefore, successful reading depends upon the readers' ability, their knowledge and understanding of the demands of the reading task and also their ability to manipulate and orchestrate the various strategies to construct meaning (Flavell, 1979). However, not all the reading strategies that have been identified in the literature are used simultaneously during reading and nor do readers employ all the strategies during a reading event.

Cloze Passage

In a cloze procedure (i.e. cloze passage), learners have to read a passage with words deleted in a regular pattern. They are required to supply the deleted words while reading so that the passage is complete again and makes sense. Cloze tasks were initially developed by Taylor (1978) as a tool for measuring the readability or difficulty level of a text (Taylor, 1978, cited in McGee, 1981). However, cloze tasks have since been used for a variety of purposes including testing for language proficiency and reading comprehension (Sadeghi, 2014). Cloze tasks have also been used to improve the ability to use contextual clues effectively (Kennedy & Weener, 1973) and to provide motivation for reading (Bloomer, 1966).

The use of reading comprehension strategies is an integral aspect in attempting a cloze passage. Learners apply various reading strategies such as inferencing, rereading and word association in order to fill the gaps in a cloze passage. While many studies have been conducted to elicit and identify learners' reading comprehension strategies (Block, 1986; Loranger, 1997; Zhang, Gu, & Hu, 2008), studies on learner strategies in attempting cloze procedures especially in the Singapore context seem to be lacking. Studies on cloze procedures have focussed more on the use of cloze procedures in assessing language proficiency and comprehension (Muaranen, 1989; Susanti, Buan, & Suhartono, 2013) and on the teaching of cloze strategies to learners (Loh, 2013).

Loh (2013) carried out a six-month remedial teaching strategy using a semantic cloze procedure on a group of low progress learners in a Singapore primary school to improve reading comprehension. Oo (2005) investigated the differences in the strategies used by both the proficient and less proficient Singapore primary learners in locating and making use of contextual clues in cloze comprehension.

However, there seems to be few Singapore studies conducted to find out the general strategies that successful and less successful primary school learners use in completing cloze passages. Cloze passages are still a component in high stakes examinations in Singapore such as in the Primary School Leaving Examination (PSLE). Investigating what Singapore learners do when they complete cloze passages will provide an insight into how learners fill in the gaps in the cloze text. It will also create an awareness of the reading process among classroom teachers in teaching students how to complete cloze passages.

Our research question was:

1. What strategies do successful and less successful learners use in completing cloze passages?

Methodology

Research Instruments

The instruments used in this study were verbal reports (think-aloud protocols and immediate retrospective interviews). Verbal reports were chosen as instruments in this study as such reports elicited before, during and after performing language-learning tasks or language-using tasks can provide rich insights into strategies that learners use. A verbal report is not one measure but it encompasses a variety of measures intended to provide mentalistic data regarding cognitive processes (Cohen, 1988).

Think-aloud protocols
Developed by Newell and Simon (1972), think-aloud protocols are based on a technique in Problem Solving Theory. In this study, participants were required to verbalise or say aloud everything they thought about and everything that occurred to them while executing the given task. As proposed

by Hayes and Flower (1980), the participants had to verbalise their thinking without engaging in any kind of introspection. The data elicited was later transcribed verbatim.

Immediate retrospective interview

To probe the participants for information about the strategies that they had used, retrospective interviews were carried out immediately after each think-aloud session. During the interviews, participants were allowed to refer to the cloze passage which they had attempted. The interview sessions were used to clarify the data obtained from the think-aloud sessions as close in time as possible to the actual task to ensure accuracy of the data collected. During the interview sessions, the researcher referred the participants back to what they had written in completing the cloze passages. Where necessary, the recorded think-aloud protocols were played back to enable the researcher to obtain further information on the strategies used by the participants or to verify the strategies that the researcher suspected the participants could have used in completing the cloze passages. During these interviews, the participants were therefore required to infer their own mental processes or the strategies that they had used at different instances (Seliger & Shohamy, 1989).

Materials

One cloze passage was used in the study. It was taken from the PSLE Specimen Examination Paper. This text was chosen as it was of a comparable standard to the actual cloze passages that students would sit for at the end of their primary school education. The participants in the study had not attempted the text prior to the study.

The cloze passage was a non-fiction text with fifteen blanks for participants to fill in with the most suitable words of their own. Each blank required one word. The first and the last sentences of the text were left intact (i.e. without any blanks/gaps).

Informant training

Cohen (1998), and Ericsson and Simon (1993) suggest that participants taking part in verbal reports be given relevant training on how to think aloud. This is to ensure that the verbal reports obtained are valid and informative.

In this study, informant training was provided for all potential participants at least a week prior to the actual think-aloud sessions. The researcher modelled the think aloud task to the potential participants who later practised think aloud by using a text provided by the researcher for use during the training session. To ensure the reliability and validity of actual think-aloud protocols for the actual data collection sessions, the researcher did not alert the potential participants to any particular strategy during the training session. The training session was also used to identify and short-list participants who were 'verbal' and capable enough to carry out the think aloud task. These participants were given a text to take home for further think aloud practice in their own time to familiarise themselves with the technique

Participants

The participants in this study were six Primary 5 pupils from a primary school that is located in a public housing estate. They were all 11 years old. They were selected by their English Language (EL) teachers based on their performance in completing cloze passages in the Semestral Assessment 1 and also based on their verbal ability. They formed a mixed gender and mixed ethnic group. Three of the participants were successful learners while the other three were less successful ones.

Procedure

During the sessions, the participants were instructed to read and think-aloud. They were told to approach the cloze passage the way they would usually do in class and to think-aloud when they encountered the gaps and considered their answers. They were also informed that they could also think-aloud at any point during the task. All the think-aloud and interview sessions were carried out with the subjects individually. The verbal reports were audio-taped and later transcribed verbatim.

Method of data analysis

The transcribed think-aloud reports from the instruments used were analysed both qualitatively and quantitatively. The transcribed data was analysed using the categories adapted from Rao, Gu, Zhang, & Hu (2007). The strategies used by each subject were identified, categorised and coded by the coder. For each coded transcript, the identified strategies were calculated. The proportion for the use of each strategy was also calculated. An inter-rater reliability check was carried out by the researcher on the strategies that had been coded and identified to ensure the reliability of the coding procedures. The coder was an experienced and trained primary school teacher. The reliability level was 78%. All the strategies used by the subjects were included as part of each participant's repertoire of strategies, regardless of their frequency. A comparison of the strategies used by the successful and less successful students was made.

Strategy categorisation

The strategy categories which were developed and used by Rao et al. (2007) in identifying the reading strategies by bilingual primary school pupils in Singapore were used as an initial guide towards the identification of the various reading strategies that the participants in this study employed in completing the cloze passages. The finalised categories described only those strategies employed by the participants in completing the given task. However, these were not necessarily the only possible strategies that learners could have employed in completing the cloze passage.

The strategy categorisation developed by Rao et al. (2007) was based on Biggs's (1993) conceptualisation of student approaches to learning. The strategies were categorised into two levels of processing: deep-level and surface-level.

The final strategy categories used in this study are shown in Table 1 below.

Table 1
Definition of Strategies for Analysing the Think-aloud and Retrospective Interview Protocols

Strategy type	Definitions
Deep-level processing strategies	
Monitor comprehension	Checking and correcting behaviour to secure understanding of what is being read.
Regulate textual management	Managing the text by planning how to approach the text and assessing the task at hand.
Inferencing	Guessing word, text meaning or answers using prior knowledge, word association or contextual information.
Analyse grammatical/ syntactical structure	Analysing syntactical structure to infer answers.

Strategy type	Definitions
Deep-level processing strategies	
Visualising	Relating new information to other concepts in memory through visualising locations or pictures.
Abandoning	Realising the challenge, stopping solving the problem.
Integrate information	Bringing together information from different parts of the text to make meaning.
Evaluate answers	Evaluating and monitoring the accuracy of the possible answers.
Surface-level processing strategies	
Paraphrase/Interpret meaning	Rephrasing content using different words but with the same sense.
Re-reading	Re-reading a word, phrase, chunk or part of the text aloud or silently to create meaning and comprehension.
Guessing	Guessing an answer without particular reason.
Local questioning of text	Questioning the meaning of a small portion of text at or below the sentence level.
Acknowledge lack of vocabulary resources	Recognising lack of vocabulary knowledge.
State failure to understand text	Stating failure to understand part of text.
Underlining	Underlining text during reading.

Results

The strategies employed by the successful and less successful learners as they attempted to complete the cloze passage given to them are summarised in Table 2. (All names used in this report are pseudonyms to protect the identity of all participants.) Table 2 also shows the collated frequencies of the strategies used by all the six learners. While the learners used a repertoire of strategies in tackling the given task, the analysis of the data collected did not seem to reveal any distinctive pattern in the strategies used by the successful and the less successful learners. It also did not show any strong evidence of learner preference for any particular strategies by either the successful or the less successful learners.

However, for two out of the three successful learners, more than 70% of the strategies that they used in attempting the given task consisted of deep-level processing strategies. In contrast, among the three less successful learners, two of them used these deep-level processing strategies less than 60% of the time. It is also worth noting that while one of the less successful learners had used the deep-level processing strategies for more than 50% of the time, closer examination of the strategies used revealed that he had applied one of these strategies inaccurately and unsuccessfully 41% of the time.

Table 2
Frequency of Strategy Use by Successful and Less Successful Learners

Strategy type	Successful Learners						Less successful learners					
	Alyah		Julian		Danial		Kwan		Kate		Ben	
Deep-level processing strategies	**Frequency**		**Frequency**		**Frequency**		**Frequency**		**Frequency**		**Frequency**	
	Raw	**%**	**Raw**	**%**	**Raw**	**%**	**Raw**	**%**	**Raw**	**%**	**Raw**	**%**
Monitor comprehension	0	0	1	3	2	3	3	6	0	0	1	3
Regulate textual management	2	8	1	3	3	4	2	4	2	3	1	3
Inferencing												
Accurate	10	40	11	33	8	11	8	16	5	7	0	0
Inaccurate	0	0	0	0	0	0	1	2	4	6	13	41
Analyse grammatical/ syntactical structure												
Accurate	3	12	1	1	2	3	3	6	1	2	0	0
Inaccurate	0	0	0	0	0	0	0	0	1	2	2	6
Visualising	0	0	0	0	0	0	1	2	0	0	0	0
Abandoning	3	12	5	15	9	12	6	12	5	7	1	3
Integrate information	1	4	3	9	1	1	2	4	0	0	0	0
Evaluate answers	0	0	3	9	16	22	6	12	10	15	0	0
Subtotal	**19**	**76**	**25**	**73**	**41**	**55**	**32**	**64**	**28**	**42**	**18**	**56**
Surface-level processing strategies	**Frequency**		**Frequency**		**Frequency**		**Frequency**		**Frequency**		**Frequency**	
	Raw	**%**	**Raw**	**%**	**Raw**	**%**	**Raw**	**%**	**Raw**	**%**	**Raw**	**%**
Paraphrase/Interpret meaning												
Accurate	2	8	2	6	10	14	1	2	5	7	2	6
Inaccurate	0	0	0	0	0	0	0	0	0	0	2	6
Re-reading	2	8	6	18	16	22	9	18	26	39	3	9
Guessing	0	0	0	0	0	0	2	4	1	2	1	3
Local questioning of text	1	4	0	0	0	0	0	0	0	0	1	3
Acknowledge lack of lexical resources	0	0	0	0	1	1	1	2	0	0	4	13
State failure to understand text	1	4	0	0	2	3	4	8	7	10	1	3
Underlining	0	0	0	0	4	5	0	0	0	0	0	0
Subtotal	**6**	**24**	**8**	**24**	**33**	**45**	**17**	**35**	**39**	**58**	**14**	**43**
Total	**25**	**100**	**33**	**97**	**74**	**100**	**49**	**100**	**67**	**100**	**32**	**99**

Except for Kate, all the learners generally used more deep-level processing strategies than surface-level processing strategies. Among all the deep-level processing strategies employed by the learners, inferencing was one of the strategies that were used most frequently. Two of the successful learners used inferencing more frequently and with more accuracy than the rest of the learners. This was followed by evaluating answers and abandoning, albeit, with varying frequencies, across these two groups of learners.

For surface-level processing strategies, the two successful learners used them less than 25% of the time. The most frequently used surface-level processing strategy by the learners was rereading, and this was followed by paraphrasing/interpreting meaning.

While all the learners employed multiple strategies in completing the cloze passage, there seems

to be no correlation in terms of the number or the frequency of types of strategies used and the success rate of the learners (see Table 3). Two of the successful learners used fewer than 10 types of strategies in tackling the given task while the third used 12. All the less successful learners used 10 or more types of strategies but performed less successfully than the three successful learners. The number of types of strategies used did not seem to determine the success rate of these learners.

Table 3
Number of Types of Processing Strategies Used by Learners

Processing Strategies	Successful Learners			Less successful learners		
	Alyah	**Julian**	**Danial**	**Kwan**	**Kate**	**Ben**
Number of deep-level	5	7	7	8	6	5
Number of surface-level	4	2	5	5	4	6
Total	9	9	12	13	10	11

Despite the absence of any distinctive pattern in the types and frequency of strategies employed by the successful and the less successful learners, we need to be careful in suggesting that there were no differences in their strategy use. Zhang et al. (2008) cautioned that relying on strategy count alone would not reveal important aspects relating to learners' efforts for improving language skills. A closer examination of the think-aloud protocols and the immediate retrospective interviews would give a better picture of how the successful learners used their strategies in completing cloze passages differently from or similarly to the less successful learners.

Strategies used by learners

Both the successful and less successful learners used a repertoire of strategies to complete the cloze passage. This section seeks to examine some of the strategies used by both groups of learners.

Successful Learners
With the exception of a few strategies, most of the strategies that the successful learners employed were similar to each other. However, the total number of strategies employed and the frequency of their use varied from learner to learner. The following section illustrates how the successful learners employed the various strategies as they attempted to complete the cloze passage.

Examples of strategies employed by successful learners

i.   Inferencing
All three learners made use of their world knowledge about snakes to make inferences as they read the text. This strategy enabled them to understand the context of the passage better.

The excerpts from the immediate retrospective interview below illustrate how Alyah employed the inferencing strategies effectively. Alyah's verbal reports illustrate how she used her knowledge of the use of the conjunction 'but' found in the adjacent sentence to come up with the word 'vary' to fill in Blank 2. The use of the conjunction 'but' in that sentence hinted to her the notion of 'being different' hence her decision to fill in the blank with 'vary'. This particular instance also illustrates her ability to integrate information found in a different sentence (or different parts) of the text. By integrating information in the text, she connected the information in order to make sense of the text.

> *Cloze Text*
> Snakes (2) _____ greatly in thickness. Some are as thin as a cord but others, like the python, may be as (3) _____ as a man's leg.
>
> *Immediate Retrospective Interview*
> Teacher: Look at the second one (Q2). The word, 'vary'. Why did you choose the word 'vary'?
> Alyah: Because the sentence after this said 'Some are as thin as a cord, but others…' it means they are different. So being different, I chose the word 'vary'.

All three successful learners made successful inferences by using contextual clues. For example, when filling in Blank 3, both Alyah and Julian took the hint from the contextual meaning of the sentence and decided that they had to choose a word opposite in meaning.

> *Cloze Text*
> Snakes (2) _____ greatly in thickness. Some are as thin as a cord but others, like the python, may be as (3) _____ as a man's leg.
>
> *Immediate Retrospective Interview*
> Teacher: What about Q3, you wrote the word 'thick'. Why?
> Alyah: Because I read over here 'some are as thin…' means I have to take the opposite which is 'thick' as a man's leg.
>
> *Think Aloud*
> Julian: Some are as thin as a cord but others, like the python, may be as (3) _____ as a man's leg. As 'big' as a man's leg. Because since they say some are as thin as a cord, so it has to be the opposite.

Besides using contextual clues, all the successful learners also made use of their prior/ background knowledge to aid their understanding of the text in order to come up with suitable answers. In attempting to fill in Blank 4, the learners drew upon their prior knowledge. For example, Alyah claimed that she had watched some documentaries about how snakes swallowed their prey.

> *Cloze Text*
> Yet all snakes can eat prey much bigger than themselves and they always swallow their prey (4) _____ .
>
> *Immediate Retrospective Interview*
> Teacher: Look at the next one, Q4. You said that they always swallow their prey 'whole'. Why did you choose the word 'whole'?
> Alyah: Because I have seen some documentaries about snakes and I learnt that they can swallow their prey whole so I chose that word.

The successful learners also demonstrated their ability at using word association as a strategy to infer the words required for Blanks 5 and 6. They had associated 'case' in the given sentence to 'reported', and the unit of measure 'kilogrammes' to 'weighing'.

> *Cloze Text*
> A case has recently been (5) _____ of a python killing a stag (6) _____ about 56 kilogrammes and devouring it.

ii. Evaluating answers

Danial struggled to fill in Blank 6, and initially admitted that he could not generate the required word. However, Danial decided to 'move on' and attempted other blanks first. He returned to Blank 3 again and made a few attempts. This is illustrated in the excerpts of the think-aloud protocols below. His perseverance paid off when he finally realised that the required word had to do with 'weight' after taking the cue from the unit of measure in '56 kilogrammes' and associating it with 'weight'. The examples below also show how Danial made use of another strategy (that is, evaluating the accuracy of the answer) to evaluate the possibilities of the various answers that he had thought of. He did this by considering various words to fill the given blank and checking on the suitability of his final choice. In this particular segment of Danial's think-aloud protocol, he also admitted that he did not know what a 'stag' was but he was not bothered by it and guessed that it was probably an animal.

Cloze Text
A case has recently been (5) _____ of a python killing a stag (6) _____ about 56 kilogrammes and devouring it.
Think-aloud
i) A python killing a stag <u>that is</u>... couldn't be <u>that is</u> about... b <u>that is</u> about can fill it in but it's two word. I mean, <u>that's</u> about. Because that's a construction (contraction). Killing a stag... <u>which</u>... couldn't be <u>which</u>. Killing a stag <u>that</u>... it's too hard to... so let's continue.
ii) ... killing a stag what about 56 kilogrammes... a stag... What's a stag. Probably an animal so... what about 56 kilogrammes. Just look at a stag about 56 kilogrammes. Just look at a python killing a stag what about 56 kilogrammes, just look at that. So, a python killing a stag, which, there's really really no other answers that I can think of, so it's still very hard, and you don't want to put a random answer like... blue... it's obviously wrong. ... of a stag, what about 56 kilogrammes. Still no answer. First of all, you cannot leave them blank.
iii) ... of a python killing a stag which is about 56 kilogrammes. Of a stag that's about... just trying to get that word. Really really need to concentrate. Of a stag which is about... which is... if only they allow two words. ... of a stag that's? that's or is it that's? of a python killing a stag... weighing. They're talking about weight here. Of a stag about 56 kilogrammes. They are talking about weight here. How heavy it is. So killing a stag weighing about 56 kilogrammes.

iii. Integrating information

Another strategy that the successful learners used was integrating information. The learners used this strategy to make logical connections of the information found in the different sentences or parts of the text to help them understand the text better, or to cue them to the expected answers. In filling in Blank 8, Alyah used the information found in the following sentence and connected it back to the earlier one. In this instance, she had already known the word for Blank 10 and this

helped her to figure out the word for Blank 8.

> *Cloze Text*
> *Such feats are (7) _____ because the jaws of snakes are constructed very (8)*
> *_____ from our own – or even from (9) _____ of any other animal*
> *for that matter. Our lower jaw is jointed to the upper jaw at ear-level, (10) _____*
> *snakes which have an extra bone linking the ends of the two jaws so as to (11)*
> *_____ a double joint.*
>
> ---
>
> *Immediate Retrospective Interview*
> *Teacher: Then what about 'differently'? You wrote 'differently' for Q8.*
> *Alyah: Because... they said... Because I read this, it says '... jointed to..., (10) <u>unlike</u> the*
> *   snakes.' That means the snakes are different. So I chose the word 'differently'.*

iv. <u>Paraphrasing/interpreting meaning</u>

Among the successful learners, Danial made use of the paraphrasing/interpreting meaning strategy the most frequently. Whenever he encountered sentences or information which he found to be challenging, he would repeat the idea in his own words to make logical sense of it, while at the same time trying to retain the original meaning of the sentences. The example shown below illustrates how he used this strategy to make out the sequence of events.

> *Cloze Text*
> *(13) _____ devouring its victim, the snake usually kills it either by (14)*
> *_____ it a poisonous bite or by (15) _____ itself tightly round the*
> *victim's body until its stops breathing.*
>
> ---
>
> *Think-aloud*
> *Danial: <u>What</u> devouring the victim, the snakes usually kills it either by <u>what</u> it a poisonous*
> *   bite or by <u>what</u> itself tightly round the victim's body until it stops breathing. <u>Before</u>*
> *   it devours its victim, it must do its poisonous bite or <u>what</u> tightly around the... it*
> *   must do that first before it devours its victims so the answer must be <u>before</u>*
> *   devouring its victim.*

v. <u>Textual management</u>

When both Julian and Danial were first given the cloze passage, they managed their text by reading it once through. Julian explained that he did this to get an idea of what the passage was about. Alyah, however, did not do so. Instead, she went straight to filling in the blanks as she read the passage.

> *Immediate Retrospective Interview*
> *Teacher: I noticed that just now, you were reading the passage once through, from the*
> *   beginning until the end. Is that your normal practice?*
> *Julian: Yup*
> *Teacher: Why did you do that?*
> *Julian: I just like to have a feel of what the comprehension is about?*
> *Teacher: So how does it help you?*
> *Julian: Because sometimes, I might have watched on TV or I may have read about it. So I*
> *   just want to see if I have seen it before, that way I know whether I can answer it or*
> *   not.*

Less successful learners

Just like the successful learners, the three less successful learners also employed a repertoire of strategies as they attempted to complete the cloze passage. These strategies were applied with

varying success among the learners.

Examples of strategies employed by less successful learners

Kwan was the most strategic among the three less successful learners. Among all the six learners in the study, Kwan applied the most number of deep-level processing strategies while attempting the cloze passage. Kwan was also the only learner who used visualising. He was gesturing while thinking aloud and during the interview session and he later claimed that he was actually visualising how the snakes' jaws could be separated. His visualisation helped him to come up with the word 'allowing' to fill in Blank 12.

> *Immediate Retrospective Interview*
> *Teacher:* What about Q12?
> *Kwan:* 'Allowing'. Because the lower jaws can completely separate. I visualised this. And the prey is big. So I visualised if the snakes' jaws are all can be separated, it can have wider space for the prey to come in to be swallowed.

Although Kwan's verbal reports showed that he seemed to have a reasonably good understanding of the content of the text, this was not reflected in his overall performance in attempting the cloze passage as he failed to score the passing mark.

Verbal reports showed that Kate, another less successful learner, had employed more deep-level processing strategies than surface-level strategies. Despite using the various strategies and persevering in completing the cloze passage, Kate had difficulties coming up with suitable words to fit the blanks. While most of the strategies that Kate used were similar to those used by the successful learners, the data collected from Kate revealed that she had difficulties in comprehending the text. Kate employed most strategies without much success. For instance, even though Kate used the inferencing strategy almost as frequently as the successful learners, almost half of the time the inferences that she made were inaccurate.

Based on the think-aloud and retrospective interview data from Kate and Ben, both learners lacked understanding of the content of the text and thus had difficulties completing the cloze passage. The lack of lexical knowledge and relevant background knowledge hampered these learners' understanding of the passage and in turn affected their ability to complete the cloze passage successfully. For example, Ben did not know the meaning of 'feat' and thought it was the same as 'feet'. Kate was not aware that snakes had jaws.

> *Cloze Text*
> Such feats are (7) _____ because the jaws of snakes are constructed very (8) _____ from our own – or even from (9) _____ of any other animal for that matter.
>
> *Think-aloud*
> *Kate:* Such feats are... I'm not sure for Q7. Q8 I think is because the jaws of snakes are constructed very... Such feats are what because the jaws...
> *Teacher:* What are you thinking?
> *Kate:* I'm thinking nothing. But I'm not sure why they intend to put the jaws of snakes because snakes don't have the jaws like sharks, snakes have like just small teeth but it's very sharp with venom. I'm not sure what they are trying to say for such feats are what but because the jaws of snakes are constructed very what from our own.

> *Immediate Retrospective Interview*
> Teacher: *There's this word 'feats'. 'Such feats'. Do you know the meaning of that word?*
> Ben: *I thought human feet*
> Teacher: *'Feat' as in…?*
> Ben: *Leg*
> Teacher: *So what do you think they are?*
> Ben: *Part of a snake.*

While Kwan and Kate laboured over completing the cloze passage, Ben completed the passage in the shortest time. Like Alyah, he was not very verbal during the think aloud session and had to be reminded a number of times to verbalise his thoughts. Hence, further insights into his strategies were gained through the immediate retrospective interview.

Among all the three less successful learners, Ben was also the one who used strategies the least frequently. His repertoire of strategies shows that he employed almost similar strategy types as the rest of the successful and less successful learners. However, despite applying these strategies, he was unable to come up with suitable words to complete the cloze passage. A closer examination of Ben's verbal data showed that he had failed to understand most parts of the text, thus making it difficult for him to complete the cloze. His failure to understand the text was especially evident during the few occasions when he attempted to paraphrase parts of the text and ended up showing that he had misinterpreted them. He also stated that he lacked knowledge of some of the lexical words in the passage like 'feat', 'devouring' and 'stag'.

While Ben's verbal reports show that he had serious problems understanding the text and completing the passage, he did not seem to be concerned about it. There was not much evidence to show that he tried to compensate for it by using other strategies such as rereading. He had reread parts of the texts on three occasions only. Unlike Kwan and Kate, Ben decided what to fill the blanks with very quickly and confidently. However, his verbal report also did not show any evidence that he had actually evaluated the accuracy of his answers.

Like the rest of the learners, Ben attempted to make a number of inferences but all the inferences that he made were inaccurate or unsuccessful. His attempts at analysing the grammatical structures were either employed in the wrong situation/part of the text or were executed incorrectly.

In summary, the less successful learners employed the strategies of rereading, inferencing, analysing grammatical structures, evaluating answers, and regulating text management. These were the same strategies as those employed by successful learners. However, one strategy that the less successful learners used and which was not used by successful learners was guessing. The less successful learners tended to choose to insert words into the cloze passage randomly without using any particular strategy. Kwan could not figure out how to fill in Blank 9 and his think aloud data revealed that he decided to 'just write randomly'. In the excerpt below, Kate guessed the word to complete the blanks without any particular strategy or logical reason. The word 'common' just came to her mind and she decided to use it to fill in the blank.

> *Cloze Text*
> *Such feats are (7) _____ because the jaws of snakes are constructed very (8) _____ from our own – or even from (9) _____ of any other animal for that matter.*

Discussion

Our findings concur with Cohen's (1998) theory that strategies themselves are not inherently good or bad, but that they can be effective or ineffective for learners for a given task in a specific context. In this study, there was no distinctive pattern in the strategies use of either the successful or less successful learners. The results of this study also showed that learners often used multiple strategies to understand the text and to fill in even one particular gap in the cloze passage. Most of the strategies were not used in isolation but were instead used in tandem with other strategies.

The findings from this study, however, seemed inconsistent with the claim made by Rao et al. (2007) that successful learners had a larger repertoire of strategies. Generally, the strategy repertoires of both the successful and less successful learners in this study were quite similar to each other. The number of different types of strategies and the frequency of strategies used by the learners did not seem to be associated with learning success. The findings revealed that the use of more strategies did not necessarily result in better understanding of the text or help in coming up with words to fill the gaps in the cloze passage.

While the repertoires of strategies of these two groups of learners with different abilities seemed similar, it was how they employed the various strategies that differentiated them from each other. Researchers such as Andersen (1991), Morrow, Gambrell, and Presley (2003), and Vandergrift (2003) have pointed out the importance of how learners orchestrate their use of strategies. According to them, in the dynamic process of strategy orchestration, a learner plays a central role in making strategic choices. These choices are made based on the 'analysis of task, self, and context, monitoring, and evaluating, and modifying strategies to solve the problem in question' (Zhang et al., 2008, p. 265). Failure to skilfully orchestrate the strategies chosen 'will not yield a satisfactory result' (Zhang et al., 2008, p. 265). Therefore, although the successful and less successful learners in this study employed very similar strategies, it was how these strategies were orchestrated that differentiated their use from each other.

Based on the findings in this study, both the successful and less successful learners seemed to have knowledge of the various types of strategies. It is possible that they could have been taught the various strategies prior to the study (i.e. in their English lessons). However, the less successful learners did not seem to know how to use the various strategies strategically and purposefully. For instance, both groups of learners knew that they could make use of grammatical/syntactic knowledge as a strategy to help decide on the word to fill the gaps in the cloze passage. However, the less successful learners' poor understanding of grammatical/syntactic structure resulted in an unsuccessful application of the strategy (e.g. Kate). On the other hand, the successful learners (e.g. Julian and Danial) were able to make use of their syntactic knowledge to get the correct form of a word to fit the context of the sentence (e.g. 'weighing' instead of 'weight'). Thus, knowledge of the different types of strategies alone was insufficient and insignificant as learners still needed to know when and how to employ the various strategies successfully in order to understand the text and to generate or select words to complete the cloze passage.

Knowledge of vocabulary and prior or background knowledge seemed to play an important role in

learners' ability to complete the cloze passage successfully. Poor vocabulary knowledge, the lack of prior/background knowledge and the inability to activate the correct background knowledge, hampered the less successful learners from understanding the passage. This in turn affected their ability to complete the cloze passage. On the other hand, the successful learners were able to draw on their prior/background knowledge and apply it in their reading to assist their comprehension. Their ability to draw on their prior/background knowledge also enabled them to choose between multiple meanings of words. The successful learners were also not very worried about some of the words that they did not know and they used other contextual information to compensate for this in order to make meaning from the text. They also drew on their prior/background knowledge to construct meaning as they read the text.

The ability to integrate information in the text also helped the successful learners to make logical connections between the information presented in the different parts of the texts to aid their understanding. Unlike the less successful learners, they did not look at the sentences in isolation but made connections with other parts of the texts when necessary. The successful learners looked at both the immediate context and the larger context before generating a word.

Rereading seemed to be a strategy commonly used by both the successful and the less successful learners. The less successful learners reread the text, often randomly, when they had difficulty understanding it or when they were unsure if the words that they had generated were suitable (i.e. to evaluate or check the accuracy of their answers). These were mainly spasmodic and random rereadings of parts of the text. This hindered their understanding as they did not make very much effort at making connections or drawing inferences other than rereading one part of the text several times. However, this strategy was employed differently by the successful learners. The rereading strategy employed by the successful learners (e.g. Danial who used rereading very frequently) enabled them to retrieve associated words from their memory or generate new words. The successful learners also used this rereading strategy in tandem with integrating information.

The successful learners differed from the less successful learners in the flexibility of their strategy use. The successful learners were more flexible in their strategy use and they, for instance, could switch from using linguistic clues in the text to contextual clues with ease. The less successful learners were more rigid in their strategy use. For instance, in making inferences, the less successful learners tended to adhere to what they thought was the prior knowledge that they had and seldom considered other strategies to check the accuracy of their understanding or answers.

Besides the use of learner strategies, this study also surfaced other difficulties that learners faced when completing cloze passages. Learners did not just need to come up with a word that best fitted the gap in the passage but they also had to spell the word correctly or get the correct form of the word. The less successful learners had difficulties with both. Ben abandoned a word he thought would fit one of the gaps because he could not spell it. Although he did not know that the word he had abandoned was not a suitable word, the fact that his abandoning the word surfaced a real problem that less successful learners might face in completing a cloze passage. Learners might know the word to fill the gap but, not knowing how to spell it, substitute an unsuitable word instead. Learners also need grammatical knowledge to ensure that the words they have generated fit the syntactical structure of the text. This study showed that not only did the less successful learners not understand the text well but they also had problems with grammar rules and thus could not provide a word which would fit the grammatical structure of the sentence.

Conclusion

While this study has surfaced some differences in the strategies employed by the successful and less successful learners in completing cloze passages, it is necessary to mention its limitations. As the data gathered from this study was based on only six subjects, the findings from it can only be

considered as preliminary. A study with a bigger sample group would provide more robust data and greater insights into these learners' strategies. The use of think-aloud was also a possible limitation as the data obtained through this method depended on how much the participants were able to verbalise their thoughts. Hence, it was possible that some strategies were missed as they were not verbalised.

Nevertheless, classroom teachers can still use some of the findings from this study to understand their learners better. The findings from this study can be used to raise their awareness of the ways learners think as they attempt to complete cloze passages. As most classroom teachers are known to teach strategies for completing cloze passages to their students, this study will inform them that strategies are not used in isolation and that knowledge of the various strategies alone is insufficient. Learners need to be taught how to orchestrate the various strategies strategically in order for them to be effective. Teachers can also teach their students to think aloud, and gain access to their thought processes so that they are able to better understand how their learners think as they attempt to complete cloze passages. This can inform teachers regarding what readers do to make sense of what they read and what they do when they do not understand. This can help them to plan more effective pedagogical approaches in teaching cloze strategies to their learners.

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