

A STUDY OF THE COGNITIVE READING STRATEGIES EMPLOYED BY ESL READERS

Noor Aireen Bt. Ibrahim & Nurulsyaida Binti Mat Saman
Fakulti Pendidikan,
Universiti Teknologi Malaysia.

ABSTRACT : Reading is a complex process that requires active participation from readers by which, they need to process and understand information in the texts. Hence, readers can understand the text more effectively if they are able to make use of appropriate reading strategies. The use of effective reading strategies is important as they help readers to minimize time and effort to comprehend a particular text. This research aims to identify and compare the cognitive reading strategies employed by students who have undergone a reading course and students who have not undergone a reading course. The participants chosen for this study were final year students from the Faculty of Education, UTM. All six participants have the same level of proficiency in English. The 'think-aloud' technique was used to identify the cognitive reading strategies employed by the participants. A set of questionnaire was distributed to the participants to examine the difference between the participants' self-reported data and their actual reading strategies. The findings of this study showed that there are differences in the types and frequency of strategies used by the participants both as groups and individually. Future research should examine reading strategies employed by participants with different levels of proficiency.

ABSTRAK : Membaca adalah satu proses kompleks yang memerlukan penglibatan aktif pembaca, iaitu mereka perlu memproses dan memahami maklumat di dalam teks. Oleh itu, pembaca akan dapat memahami teks secara lebih berkesan dengan menggunakan strategi-strategi pembacaan yang sesuai. Penggunaan strategi membaca yang sesuai dan berkesan adalah penting untuk memudahkan dan mengurangkan masa pembaca untuk memahami sesuatu teks. Kajian ini bertujuan untuk mengenalpasti dan membandingkan strategi-strategi pembacaan kognitif yang digunakan oleh pelajar-pelajar yang telah mengikuti kursus pembacaan dan pelajar-pelajar yang tidak mengikuti kursus pembacaan. Enam peserta yang terlibat dalam kajian ini adalah pelajar-pelajar tahun akhir dari Fakulti Pendidikan, UTM yang mempunyai tahap kemahiran Bahasa Inggeris yang sama. Kajian ini menggunakan teknik 'think-aloud' untuk mengenalpasti strategi pembacaan kognitif yang digunakan oleh peserta. Kaedah soal selidik digunakan untuk mengkaji perbezaan antara laporan sendiri peserta terhadap strategi pembacaan mereka dengan strategi pembacaan yang telah mereka gunakan semasa aktiviti 'think-aloud'. Dapatan kajian menunjukkan bahawa terdapat perbezaan dari segi jenis dan kekerapan strategi yang digunakan oleh peserta. Hasil dari kajian ini menyarankan penyelidikan pada masa akan datang mengkaji strategi pembacaan ke atas peserta yang mempunyai tahap kemahiran Bahasa Inggeris yang berbeza.

Katakunci : *reading strategies, 'think-aloud' technique.*

INTRODUCTION

English has become a significant language in the world as there are millions of people using English as their first or second language (Baker, 2001). In Malaysia, English plays as the second language and is becoming extensively important since it is used as a medium of interaction in various fields mainly in education. In the educational field, university students have to read a lot of English sources as most institutions of higher learning are currently changing their medium of interaction to the English language. Thus, students need to master some basic skills of English language learning in

order to cope with the English or content subjects. Among the most important skill of English language learning is reading skill where it is essential for learners to master as it is not only to ensure success in learning the English language, but also in understanding the content subjects.

Reading is not merely a receptive process of picking up the information from the page in a word-by-word manner (Grabe, 1991), but it is a more complex process (Chittravolu et. al, 2005) that involves selective and active processes of comprehending a text. Reading is a part of a learning process, as the readers will get information and knowledge from what they read. As Quinn and Irvings (1991) state, reading is examining and understanding characters, words, or sentences and it provides new ideas that will add to one's store of knowledge. In the reading process, there are various reading strategies used by the readers to improve their reading comprehension. These strategies would help them to develop their reading and thinking skills.

A number of studies have been conducted on the use of reading strategies. These studies were to distinguish the reading strategies used by students according to different factors such as gender, age, level of proficiency, year of study and others. Based on these factors, the studies show that each student used different reading strategies from one another. Most previous research on reading strategies was done on the native English readers who are already competent in the language. The reading strategies employed by native readers and non-native readers were obviously different, as the reading texts would be more demanding for non-native readers. The non-native readers also showed differences among each other in the use of reading strategies. As the use of reading strategies varies from one person to another, this study will examine the different reading strategies employed by students who have undergone a reading course and students who have not undergone a reading course.

STATEMENT OF PROBLEM

According to Forget and Bottoms (2000 as cited in Suspanic, 2006), most students have difficulty in comprehending and retaining information when simply reading a text. This was supported by Meltzer (2001 as cited in Suspanic, 2006), who states that most students need help in learning new vocabulary, learning new reading styles, learning independently and using reading strategies. Generally, most students read very slowly and their vocabulary is deficient. They do not know how to guess the meaning of unfamiliar words. They are not capable of guessing the meaning of unfamiliar words within context. In addition, the second language readers also face additional challenges while reading an English text mainly when reading unfamiliar topics that do not allow them to activate their prior knowledge to comprehend the text.

This is also a problem faced by most students in UTM, where they have difficulty understanding English text. This is due to that most students tend to translate word by word while interpreting the text, and although they may know the meaning of each word, they are still incapable to comprehend the ideas conveyed in the text. They also lack a clear purpose of why they read a text and thus, they tend to use ineffective reading strategies. Some of them may not even be concerned with their reading behaviors and do not realize that there are many reading strategies that they could employ to understand a text. This might be because they have never been exposed to the reading strategies and never known that that are strategies for reading. Students who have been exposed to the reading strategies might use better reading strategies. Therefore, this research which adopted the think-aloud technique was conducted to compare reading strategies used by students who have undergone a reading course and students who have not.

OBJECTIVES OF STUDY

The objectives of this study are:

1. To identify the cognitive reading strategies employed by students who have undergone a reading course.
2. To identify the cognitive reading strategies employed by students who have not undergone a reading course.
3. To compare the reading strategies employed by students who have undergone a reading course and students who have not undergone a reading course.

SCOPE OF STUDY

This study involves students who have undergone a reading course and students who have not undergone a reading course. The students who have undergone a reading course are those who have recently taken the UHB 3032; Reading for Specific Purposes subject. Students who have undergone the reading course are expected to have more knowledge of reading strategies compared to students who have not undergone the reading course. These students are the final year students from Faculty of Education, UTM. For this research, six students with the same level of proficiency were chosen as respondents; three of them have undergone a reading course while another three have not.

SIGNIFICANCE OF STUDY

This study explored the reading strategies used by students who have different knowledge of reading strategies, which were students who have undergone the reading course and students who have not undergone the reading course. Specifically, the findings of this study will show that attending a reading course may help students use reading strategies more efficiently while reading a text which is important to develop their reading skills and reading competency.

This is because students who have knowledge of reading strategies will use the strategies more appropriately and effectively to help them tackle the text. It is important to use reading strategies effectively as it helps students understand the text with minimum of time and effort. Besides that, this study would also increase students' awareness about the effective reading strategies, in which these strategies would change their reading behaviors and help them in their reading comprehension and retention. It is hoped that students will make use of many useful reading strategies in order to improve their reading comprehension of English materials and their content subjects as well.

RESEARCH DESIGN

In order to determine reading strategies employed by the ESL readers, the qualitative method was adopted in this study. In this study, the participants were required to read an English text and to carry out the think-aloud technique. The think-aloud technique was used to analyze the reading strategies employed by readers during the reading process. The students also needed to answer four comprehension questions regarding the text that they have read. Besides this, the students were required to answer a set of questionnaire regarding the cognitive reading strategies they employed while reading the text. The think-aloud technique was used to investigate the actual types of reading strategies employed by students and the questionnaire was distributed in order to know students' self-reported data and the awareness of their reading behaviors.

RESPONDENTS OF THE STUDY

The participants of this study were the fourth year students from Faculty of Education, UTM. The participants were students who have undergone a reading course and students who have not undergone a reading course. Previously, the researcher recruited four participants for this study. However, the number of participants was increased to six students in order to obtain more data for the findings. All six participants are taking educational courses such as Islamic studies (SPI), living skills (SPH) and physics (SPN). From the six participants selected in this study, the three of them are students who have undergone a reading course while the other three have not undergone a reading course.

In this study, the students who have taken the UHB 3032; Reading for Specific Purposes subject were designated as students who have wider knowledge and exposure on reading strategies and the students who have not taken the subject were designated as those who have less knowledge and exposure on reading strategies. The selection of the respondents was based on whether they have undertaken a reading course or not, regardless of other factors such as gender or ethnic background. All participants in this study have the same proficiency level, which is band three in their MUET results.

In this study, the final year students from the Faculty of Education were selected as the respondents because they are more motivated to participate in this study. This is because this study would give them information on the needs of using effective reading strategies to comprehend the text better. It also increases students' awareness of the importance of attending a reading course which will help them to improve their reading behaviors and reading comprehension. Furthermore, the selected respondents are students of educational courses whose subject matters require them to read a lot compared to students from others courses such as engineering or computer science. Moreover, it is important for them as future teachers to know the significance of reading strategies as reading is an essential skill to learn any subject matters, not just English.

RESEARCH INSTRUMENTS

Three instruments were used in this study: i) an English text, ii) strategy classification coding system and iii) a set of questionnaire. These instruments were used in order to get a more valid and reliable data in the study. For the first stage, an English text was given to each participant and they were required to carry out the think-aloud technique while reading the text. After carrying out the think-aloud technique, the participants were asked to answers four comprehension questions based on the reading text. No specific time limit was allocated for the think-aloud technique and for completing the comprehension questions. Next, a set of questionnaire was distributed to each participant to obtain their self-reported data.

PILOT STUDY

A pilot study was conducted before the actual data collection. In this study, the pilot study was carried out for two important reasons: i) to examine the suitability of the reading text, and ii) to assess the reliability of the questionnaire. This is to ensure the text is appropriate with the participants' level of proficiency and their language competence. It would also allow the researcher to evaluate the clarity of questionnaire as well as the ability of both think-aloud technique and questionnaire of getting feedback from the participants. The pilot study involved four students from

the target group; two students who have undergone a reading course and another two students have not. All of these students were female and they have the same level of proficiency that is band three in their MUET results. The text used for the pilot study entitled '*Group Therapies*'. After the pilot study, the researcher found the text chosen was too easy, too short, and the topic too unfamiliar for the participants' field of study. The listing format in the questionnaire was also not clear and was then changed and rewritten into complete sentences to make it more comprehensible.

FINDINGS

Reading Strategies Employed by Participant A

it shows that participant A had used twelve reading strategies, which are *anticipate content, skim the text, recognize text structure, integrate information, interpret the text, use general knowledge and experience, monitor comprehension, correct behavior, paraphrase, reread, question meaning of a word, and solve vocabulary problem*. The other ten strategies such as *question information in the text, comment on behavior or process, react to the text, question meaning of a clause or sentence, expressing lack of understanding, asking friends information in the text, asking friends the meaning of words, underlining, review understanding of the text and summarize ideas in the text* were never used by participant A. Participant A had used both the pre-reading strategies, however she did not use any of the post-reading strategies.

For the while-reading phase, participant A used both word level strategies and three types of sentence level strategies which are recognize text structure, paraphrase and reread. For the conceptual level strategies, only three strategies were not used including question information in the text, comment on behavior or process, and react to the text. The researcher also found that participant A did not any of the external strategies and other strategy listed in this study. The most frequent strategy used by participant A was interpreting the text as it has the highest number of occurrence that is 18 times. She interpreted the text most of the time by using her own words or translating the sentences word by word. This means that participant A is usually interpreting the sentences in order to improve her understanding. The least frequent strategies used by participant A were *anticipate content, skim the text, integrate information, use general knowledge and experience, monitor comprehension and correct behavior*, in which each of them was used only once through out the reading process.

Reading Strategies Employed by Participant B

The researcher found that participant B employed nine reading strategies listed in Block's study. The strategies were *recognize text structure, question information in the text, interpret the text, use general knowledge and experience, react to the text, paraphrase, reread, question meaning of a word and solve vocabulary problem*. The other strategies employed were *expressing lack of understanding, asking friends the meaning of words, summarizing ideas in the text and underlining*. The most frequent strategy used was *interpreting the text* by which participant B used this strategy 12 times in understanding the text. Meanwhile, the least frequent strategies used were *recognizing text structure, paraphrase, reread, asking friends the meaning of words, and summarizing ideas in the text* with only once used by participant B. Most of these strategies were from the while-reading phase of sentence level strategies.

The researcher identified that participant B did not use any of the pre-reading strategies, but she had used most of the while-reading strategies. Similar with participant A, participant B used both of the word level strategies. She also mostly used the sentence level strategies, with only the strategy of *question meaning of clause or sentence* was not used. For the conceptual level strategies, she used half of the strategies listed in this category and the other half was not used. It was also found that

participant B used one of the external strategies that is *asking friends the meaning of words*. Participant B also used one of the post-reading strategies, which is *summarizing ideas in the text*. Participant B had summarized the ideas in the text after she finished reading.

Reading Strategies Employed by Participant C

Participant C had used of similar number of strategies with participant B, which were nine strategies from the Block's study. The nine strategies employed by this participant were *question information in the text, interpret the text, monitor comprehension, correct behavior, react to the text, paraphrase, question meaning of a clause or sentence, question meaning of a word and solve vocabulary problem*. Meanwhile, the strategies that were not employed by participant C were *anticipate content, recognize text structure, integrate information, use general knowledge and experience, comment on behavior and process, and reread*. Besides the strategies classified by Block, participant C also used other strategies, which were *skim the text* and *expressing lack of understanding*. Unlike other participants, participant C did not use other strategies such as *asking friends the information in the text, asking friends the meaning of words, summarizing ideas in the text and underlining the sentences*.

Similar to participants A and B, participant C also used the reading strategy of *interpreting the text* most frequently that is ten times. Participant C was interpreting the text most of the time based on her understanding. She also interpreted the text by considering the context of the sentences. On the other hand, the strategies that were least used by participant C included *skim the text, monitor comprehension, correct behavior, paraphrase, and solve vocabulary problem* as they were being used only once. Thus, it shows that participant C used one pre-reading strategy and also a number of the while-reading strategies at word level, sentence level and conceptual level. Participant C did not use any of external strategies in while-reading phase and also any of the post-reading strategies.

Reading Strategies Employed by Participant D

Participant D is the fourth participant in this study, but she was the first participant who has not undergone a reading course. From the findings, the researcher found that participant D had employed eight reading strategies from fifteen strategies used in Block's study that are *integrate information in the text, question information in the text, interpret the text, monitor comprehension, react to the text, paraphrase, reread and question meaning or a word*. Other than that, participant D was also *expressing lack of understanding* and *underlining the sentences*. From these strategies, participant D used the strategy of *interpreting the text* most often with the total number of occurrences was twelve times. On the contrary, there were three strategies that were least used by participant D which were *integrate information in the text, question information in the text, and monitor comprehension*. All of these strategies were only used once by participant D.

Despite those ten strategies employed by participant D, there were other twelve strategies that have not been used by this participant while understanding the text, which were *anticipate content, skim the text, recognize text structure, use general knowledge and experience, comment on behavior or process, correct behavior, question meaning of a clause or sentence and solve vocabulary problem, asking friends information in the text, asking friends the meaning of words and review understanding of the text, and summarizing*. Thus, it means that participant D did not use both strategies in the pre-reading phase, external strategies in the whilereading phase as well as strategies in the post-reading phase. She also did not use all the strategies at word level, sentence level and conceptual level strategies in the while-reading phase.

Reading Strategies Employed by Participant E

The findings suggest that participant E has made use of most of the reading strategies listed by Block (1986) in her study. This participant had employed fourteen strategies while reading the text which were *recognize text structure, skim the text, integrate information, interpret the text, use general knowledge and experience, monitor comprehension, react to the text, paraphrase, reread, question meaning of a sentence or clause, and question meaning of word, expressing lack of understanding, and underlining and review understanding of the text*. From these strategies, ten of them were proposed by Block's study. Meanwhile, the other strategies that were not employed by participant E were *anticipate content, question information in the text, comment on behavior or process, correct behavior, and solve vocabulary problem*. She also did not *ask friends the information in the text, ask friends the meaning in the text and summarizing ideas in the text*.

Unlike other participants, there two most frequent strategies used by participant E were *interpreting the text* and *underlining the sentences* by which she used these strategies eighteen times. Both of these strategies are from the conceptual level and sentence level strategies in while-reading phase. On the other hand, the strategies of *skim the text, recognizing text structure, question meaning of a word and review understanding of the text* were only used once by participant E as she preferred to interpret the text more in her reading. The findings show participant E employed one strategy in pre-reading phase and post-reading phase. She also employed one word level strategy in while-reading phase. In contrast, she used all of the sentence level strategies and only three strategies from the conceptual level strategies were not used. Participant E did not use any of the external strategies in while-reading phase.

Reading Strategies Employed by Participant F

The findings showed that participant F employed fourteen strategies in her reading with 11 of the strategies mentioned by Block in her study. The number of strategies listed by Block was the same as the number of strategies employed by participant A. These 11 strategies were *recognize text structure, integrate information, question information in the text, interpret the text, use general knowledge and experience, correct behavior, react to the text, paraphrase, reread, question meaning of a word, solve vocabulary problem, expressing lack of understanding and asking friends information in the text and review understanding of text*. Again the strategy of *interpreting the text* has the highest number of occurrence that is thirteen times. It shows that participant F also frequently made use of interpreting the text strategy in understanding the text.

In contrast to this, there were five types of reading strategies were least used by participant F, which were *recognize text structure, question information in the text, correct behavior, asking friends the information in the text and review understanding of the text* since each of this strategy occurred only once. Participant F did not use both pre-reading strategies in her reading. However, she used the while-reading strategies most such as both word level strategies, three types of sentence level strategies, six types of conceptual level strategies, one external strategy and also other strategy listed in the Table 4.1.6. For the post-reading phase, she only made use of one strategy that is review understanding in the text. Then, the strategies that have never been used by participant F were *anticipate content, skim the text, comment on behavior and process, monitor comprehension and question meaning of clause or sentence*. She also did not *ask friends the meaning of words, summarize ideas, and underline sentences*. However, participant F made use of most the reading strategies mentioned by Block in her study.

CONCLUSION

In general, this study was conducted with the aim of identifying the reading strategies employed by ESL readers. Specifically, this study has looked into the reading strategies employed by participants who have undergone a reading course and participants who have not undergone a reading course. The data of this study was collected through three stages: i) Think-Aloud task, ii) data transcription and iii) assigning reading protocols to the types of reading strategies. Findings of this study show that there were similarities and differences in the use of reading strategies employed by both groups of participants in terms of classification of strategies and the single type of strategies.

The findings of this study shows that the reading strategies employed by the two groups of participants were relatively not much different in terms of the types of reading strategies, number of strategies, number of frequency, common strategies used and the strategies that were most often and least used by participants. From the twenty-two strategies listed in this study, there were sixteen types of strategies that similarly used by the participants. Both groups of participants tend to use the same types of reading strategies such as *skim the text, recognizing text structures, integrate information, question information in the text, interpret the text, use general knowledge and experience, monitor comprehension, correct behavior, react to text, paraphrase, reread, question meaning of a clause or sentences, question meaning of words, solve vocabulary problems, expressing lack of understanding, and underlining.*

However, there were some significant differences found in this study in the use of reading strategies and these differences can be seen in the terms classification of the strategy types and also the single type of strategies. In terms of the classification of the strategies, word level strategies and sentence level strategies showed significant differences between the two groups of participants. The word level strategies were used more often by participants who have undergone a reading course while sentence level strategies were used extremely more often by participants who have not undergone a reading course. This shows that participants who have undergone a reading course are more critical readers and participants who have not undergone a reading course faced more comprehension problems at sentence level. In terms of the single type of strategies, the strategies such as *integrating information, question information in the text, paraphrase, reread, expressing lack of understanding and underlining* appeared as significant strategies in this study. The significant differences in the use of these strategies conclude that participants who have undergone a reading course were able to respond to the text critically and used the strategies more effectively.

Thus, this shows that attending a reading course has given a significant impact on participants in the use of reading strategies as the course provides sufficient practices and exposure to reading skills and reading strategies. In this course, the participants are also exposed to the variety types of reading texts which help to familiarize them with reading English materials compared to participants who have not undergone a reading course. Hence, reading course is indirectly effective to improve participants' reading skills and help them to use reading strategies more effectively to understand the text as well as encourages participants to be better readers. It also signifies the importance of attending a reading course to improve one's reading competency since this course indirectly exposes participants to adopt reading strategies and reading skills in order to critically respond to the reading text and these skills are very useful in any subject matters.

REFERENCE

Anderson, N. J. (1991). Individual differences in strategy use in second language reading and testing. *Modern Language Journal*, 75(4), 460-472.

- Anderson, N. J.(1999). *Exploring second language reading: Issues and Strategies*. Boston, MA: Heinle & Heinle.
- Baker, C (2000). *Foundations of bilingual education and bilingualism (3rd ed.)*.England: Multilingual Matters.
- Chitravelu, N., Sithamparam, S. & Teh, Soo Choon (2005). *ELT Methodology: Principles and Practice (2nd ed.)*.Penerbit Fajar Bakti Sdn. Bhd: Malaysia.
- Cohen, A. D. (1996). Verbal reports as a source of insights into second language learner strategies. *Applied Language Learning*, 7(1&2), 5-24.
- Dechant, E. (1982). *Improving the Teaching of Reading (3rd ed)*. USA: Prentice Hall.
- Dechant, E. (1991). *Understanding and Teaching Reading: An Interactive Model*. Hillsdale, NJ:Lawrence Erlbaum.
- Garnham, A (1985). *Psycholinguistics: Central Topics*. London: Methuen.
- Gough, P.B. (1972). One second of reading. In J.F. Kavanagh and I.G. Mattingly (Eds.) *Language by Ear and Eye*. Cambridge, MA: MIT Press.
- Hosenfeld, C. (1977). *A preliminary investigation of the reading strategies of successful and non-successful second language learners*. *System*, 5(2), 110-123.
- McEvoy, G. & Vincent, C. (1980). Who reads and why. *Journal of Communication*, 30, 134-140.
- O'Malley, J. M. & Chamot, A. U. (1990). *Learning strategies in second language acquisition*.Cambridge: Cambridge University Press.
- Rumelhart, D.E. (1985). Toward an interactive model of reading. In Singer, H. & Ruddell, R.B. *Theoretical models and the processes of reading (3rd ed.)*.Newark, DE: International Reading Association.
- Salataci, R. & Akyel,A (2002). Possible Effects of Strategy Instruction on L1 and L2 Reading. *Reading in a Foreign Language*, 14(1). Accessed on 20th August 2008. Available online: <http://nflrc.hawaii.edu/rfl/April2002/salataci/salataci.html>
- Urquhart, S. and Weir, C (1998). *Reading in a Second Language: Process, Product and Practice*. London: Longman.