



ISSN:1991-8178

Australian Journal of Basic and Applied Sciences

Journal home page: www.ajbasweb.com



Using a Metacognitive Strategy and Skill Reading Courseware to Develop Critical Reading Skills: A Literature Study

Norbaiyah Abd Kadir

Academy of Language Studies University Technology MARA (UiTM) Pahang Kuantan, Malaysia

ARTICLE INFO

Article history:

Received 10 October 2015

Accepted 30 November 2015

Available online 31 December 2015

Keywords:

Critical Reading Skills, Reading Strategies, Metacognitive Skills and Strategies, Reading Courseware

ABSTRACT

Background: Metacognitive skills and strategies are important and should be emphasized when teaching reading. However, it is evident that the teaching of these skills and strategies are at times not taught in Malaysian reading classes, thus making it difficult to develop critical reading skills among Malaysian students. In order to help teachers to teach these critical reading skills we propose to build a metacognitive strategies and skills reading courseware. This paper is a literature study on the importance of teaching metacognitive strategies and skills, and implementing them by using a reading courseware to develop critical reading skills among students. It is hoped that with the newly designed reading courseware we can help language teachers to teach critical reading skills more effectively and interestingly in schools. Thus, it will also be beneficial for students to develop their critical reading skills.

© 2015 AENSI Publisher All rights reserved.

To Cite This Article: Norbaiyah Abd Kadir., Using a Metacognitive Strategy and Skill Reading Courseware to Develop Critical Reading Skills: A Literature Study. *Aust. J. Basic & Appl. Sci.*, 9(37): 120-124, 2015

INTRODUCTION

The problem faced by students in a reading class is that they are not taught to be critical readers. In order for teachers to help students develop critical reading skills the teaching of metacognitive skills and strategies should be given emphasis. It is hoped that by teaching these metacognitive skills and strategies we can help develop critical reading skills among students in schools. Thus, this will not only prepare them to be better critical readers in schools but we also hope we can produce better critical readers who can survive in the real world. Therefore, it is vital for teachers to first understand the theoretical concept of what is meant by the metacognitive skills and strategies and why it is important for teachers to adopt them when teaching reading.

However, the current methodology in teaching reading does not emphasize on developing critical reading skills among students even though the curriculum states that it should be taught. Metacognitive strategies and skills are also not being focused and taught by teachers.

We need to employ more metacognitive activities in a reading class in schools as to develop critical reading skills among students. Since the current reading methodologies do not emphasize on the teaching of critical reading skills and teachers are using the traditional methodologies we are proposing

and developing a framework in teaching reading through technology. A reading courseware is hoped to be developed so that students could use their metacognitive strategies and skills to develop critical reading skills.

The research objectives are:

- To develop critical reading skills using metacognitive strategies and skills in a reading class.
- To demonstrate critical reading skills using metacognitive activities through a reading courseware in a reading class.
- To propose and develop a framework for teaching critical reading skills using metacognitive strategies and skills in a reading class.

This study is hoped to answer the research question:

- How can technology support the ability of students becoming critical readers?

Literature Review:

The findings gathered from some of the studies done by researchers have proven the importance of teaching critical reading skills to students, and there are also evidences that show critical reading skills should be emphasized when teaching reading in schools. Studies on metacognitive strategies and skills have also shown that it is imperative for

students to be exposed to such strategies and skills in order for them to be better critical readers.

We need to teach critical reading skills to students because we want them to not only know how to convert orthographic symbols to language (word attack skills), use context and knowledge to comprehend what is read (comprehension skills), or see larger sentences as wholes, a process which help students to read fluently (fluency skills) (Hudson, 2007). We know that most students can read but our main concern is whether they could understand the text critically like “reading between the lines” or “reading for deeper meaning” because if we could help them develop critical reading skills, they would definitely have good reading comprehension skills and could be successful in schools. Students with good reading comprehension skills could perform well in any subject/course because they have developed the critical reading skills to not only understand but analyze any text given to them. This will also help them to score better in any tests or exams they have to take in schools. What is more crucial here is that we will prepare them to be better students if they embark in any program at the tertiary level.

When we teach reading to students, and try to understand their personal reasons for reading we will try to make reading process a meaningful one. For example, when we engage students in reading for learning we must not all the time carry out reading activities which have little to do with facts or opinions like what Goodman sees as ‘ritualistic’ (Goodman, 1984). One good example of these reading activities is the reading aloud activity which this kind of reading activity may only have a ‘display’ function rather than offering evidence of learning or reflection (Wallace, 2003). However, this is what happening in most reading classes in schools. We do not employ any critical reading skills here because such an activity imposes little understanding of its content to students. Therefore, we need to minimize on such reading activity in our reading class if we want to help our students to develop critical reading skills. Thus, we need to employ more metacognitive activities in a reading class in schools as to develop critical reading skills among students. This is what we are focusing in this study.

One of the categories in reading skills is critical reading skills. Critical reading skills are skills that will help students to be able to analyze, synthesize, and evaluate what is read (Hudson, 2007). When teachers expose students to critical reading skills, they will also make students see the cause – and – effect or comparing relationships in the text, or adopting critical stance toward the text. In other words, when we teach critical reading skills to students we will develop them to be critical thinkers as well because when they do critical reading it will lead to critical thinking (critical reading will come

first before critical thinking). What is meant here, students need to have fully understood a text where they would analyze, synthesize, and evaluate it, then only they would think critically about the text – choose or reject the ideas put forward, agree or disagree with the issues, and most important of all they know the reason(s) why they do it.

However, this is what happening in most reading classes in schools. We do not employ any critical reading skills here because such an activity imposes little understanding of its content to students. Therefore, we need to minimize on such reading activity in our reading class if we want to help our students to develop critical reading skills.

a. Reading Strategies and Reading Skills: Reading skills/strategies are viewed as:

Skills refer to information-processing techniques that automatic, whether at the level of recognizing phoneme-grapheme correspondence or summarizing a story. Skills are applied to text unconsciously for many reasons including expertise, repeated practice, compliance with directions, luck, and naïve use. In contrast, strategies are actions selected deliberately to achieve particular goals. An emerging skill can become a strategy when it is used intentionally. Likewise, a strategy can go ‘underground’ ... and become a skill. Indeed, strategies are more efficient and developmentally advanced when they become generated and applied automatically as skills (Paris *et al.* 1996).

b. Metacognitive Skills and Strategies:

John Flavell is said to be one of the earliest researchers in metacognition theory and he defined metacognition as: “In any kind of cognitive transaction with the human or non-human environment, a variety of information processing activities may go on. Metacognition refers, among other things, to the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in service of some concrete goal or objective” (Flavell, 1976). A formal model of metacognition was then proposed which include metacognitive strategies as one of its classes in this model. Metacognitive strategies “are designed to monitor cognitive progress and are ordered processes used to control one’s own cognitive activities and to ensure that cognitive goals (for example, solving a math problem, writing an effective sentence, and understanding reading material) have been met. A person with good metacognitive skills and awareness uses these processes to oversee his own learning process, plan, and monitor ongoing cognitive activities, and to compare cognitive outcomes with internal or external standards. A single strategy can be invoked for either cognitive or metacognitive purposes and to move toward goals in the cognitive or metacognitive domains (Flavell, 1979). For

example, students may ask themselves questions at the end of a learning unit with the aim of improving knowledge of the content, or monitor comprehension and assessment of the new knowledge.

It is undeniable that if we involve or engage students with metacognitive activities every day they would become successful learners. We would also develop them to be critical readers and thinkers. This is what we want to happen in any reading class, teachers engage themselves with teaching students to use their metacognitive skills and strategies to help them understand better the text given to them. In a simpler explanation about metacognitive, it is also defined as "thinking about thinking" (Pierce, 2004). Meaning that we would encourage students to think beyond what they are thinking about the ideas in the text. They may come to a consensus that they may or may not agree with the writer but they must come out with valid and justified reason/s to their answers. If we could produce students to think like this, we are for sure could help them be better people when they leave school. Students who are taught these metacognitive skills and strategies would not afraid to challenge any text they read; therefore they could read between the lines and try to integrate what is read with other ideas not stated in the text. Here, students would try to ensure that they would achieve their goal in reading, for example trying to understand the whole text (to get the meaning), not just reading the words (sounding them) in the text. They would also become assertive readers rather than become submissive readers, thus this would make them be better critical readers. The question is whether teachers are teaching students these metacognitive skills and strategies or not?

Metacognitive skills play a strategic role in such problem-solving cognitive activities like reading comprehension, writing, language acquisition and logical reasoning (Flavell *et al*, 2002). Our main concern here is employing metacognitive skills when teaching reading in schools. As it is explained, metacognition in reading represents the planning, monitoring, and evaluating of the reading process, where planning involves the identifying a purpose for reading and selecting particular actions to achieve the reader's goals, monitoring involves regulating and redirecting the reader's efforts during the course of reading to accomplish that goal, and evaluation involves the reader appraising her or his cognitive ability to carry out the task (Hudson, 2007). Teachers need to know these metacognitive skills that must be focused in the teaching of reading.

c. Research on Technology:

However, to help enhance critical reading skills technology is said to be one effective way in achieving it. Most educators today agree and believe that technology has the potential to connect students to reading and also writing. It is said that we need the potential of new technology to revitalize reading

instruction and to make reading more relevant to the lives of children growing up in the Electronic Age (Meyer *et al*, 2002). This is supported by the idea that teachers can use network-based approaches to literacy instruction to support authentic reading and writing, collaboration, student-centered learning, writing across the curriculum, and the creation of classroom reading and writing activities (Bruce *et al*, 1999). With the development of the new metacognitive strategy and skill reading courseware it is hoped we could develop critical reading skills among students.

It has been asserted by prominent educational researchers and practitioners that the potential of new technologies for learning is likely to be found not in the technologies themselves but more in the way in which these technologies are used for learning (Means *et al*, 1995). Thus, a reading courseware could be considered to be a technology used in the teaching and learning process when teaching reading and it is hoped that it could develop critical reading skills among students.

There are many educational technologies that support the development of students' reading skills. This includes audiobooks, electronic books, electronic talking books, and programmed reading instruction where a reading courseware can be employed. All these educational technologies have great impact on the reading development among students. For example, the use of audiobooks with struggling, reluctant, or second language learners is powerful since they act as a scaffold that allows students to read above their actual reading level (Beers, 1998). Therefore a reading courseware with metacognitive strategies and skills is hoped to enhance critical reading skills among since it is also a type of educational technology.

There are various types of software programs, computer-assisted instruction, and integrated learning systems which offer programmed reading instructions for students. This is what we call skills-based instruction and it ranges from letter recognition to phonics instruction to vocabulary building. For example a study has indicated that computer-assisted instruction is valuable in improving the phonological awareness of 6-year-olds and this computer program helped children learn to discriminate and sequence the sound in words, which in turn improved their word-reading ability (Barker *et al*, 1995). A metacognitive strategy and skill reading courseware which could offer programmed reading instructions is yet to prove that it could enhance critical reading skills among students.

It is said that computers should and will play a major role in the reading classroom but will almost certainly not replace books or teachers. However, they will influence and perhaps even redefine traditional books, literacy, and the role of teachers, but all three will survive and thrive (Meyer *et al*, 2000). Therefore, with the many upcoming

developments in educational technologies we must not worry that they will take the place of the teachers and traditional books. With the new designed of the proposed reading courseware with specific metacognitive strategies and skills activities is hoped to add to the existing pool of educational technologies available.

Discussion:

In this study, the implementation of metacognitive strategies and skills are made through a very selective set of metacognitive activities which will be carried out in a reading classroom. This is hoped to help students develop into better critical readers. One of the metacognitive activities that we want to suggest is through a newly designed reading courseware where the reading texts in the courseware could help trigger/enhance critical reading skills. Reading texts pertaining to issues in Malaysia will be more appropriate so that they will be more authentic. Furthermore, this courseware will be meaningful and beneficial for the students because they could use their metacognitive skills to “challenge” the texts.

Research Framework and Procedure:

A newly designed reading courseware will be developed and used to help enhance critical reading skills.

In this study, the implementation of metacognitive strategies and skills are made through a very selective set of metacognitive activities which will be carried out in a reading classroom. This is hoped to help students develop into better critical readers. One of the metacognitive activities that we want to suggest is through a newly designed reading courseware where the reading texts in the courseware could help trigger/enhance critical reading skills. Reading texts pertaining to issues in Malaysia will be more appropriate so that they will be more authentic. Furthermore, this courseware will be meaningful and beneficial for the students because they could use their metacognitive skills to “challenge” the texts.

Research Framework:



Respondents:

The respondents involved in this study will be Form Four students from the Methodist Girls' School Kuantan, Pahang. The students will be engaged in the reading courseware activities for duration of time stated in the study time plan. A pre-test will be given to the students before they are asked to use the reading courseware to check on their critical reading skills. After they have been exposed to the reading courseware activities a post-test will be given to the

respondents to check again on their critical reading ability.

Conclusion:

With the newly proposed and designed reading courseware it is hoped that students can benefit more from the reading class and they could develop their critical reading skills. Teachers too could make their reading classes more profound and thus can help students be more critical readers. Reading skills, reading strategies, and metacognitive skills and strategies are not to be taught in isolation. With these skills and strategies, students will better understand whatever text given to them. Students should be made aware of their learning skills and strategies as to help them be critical and successful students in the future. Teachers should employ the appropriate strategies in their method of teaching reading and they need to be creative in their teaching activities as to help students develop into better critical readers. With this newly proposed metacognitive reading strategy and skill reading courseware it could be one of the creative reading methodologies through technology.

REFERENCES

- Barker T.A., J.K. Torgesen, 1995. An Evaluation Of Computer-Assisted Instruction in Phonological Awareness With Below Average Readers. *Journal of Educational Computing Research* 13, 89–103.
- Beers, K., 1998. “Listen While You Read: Struggling Readers and Audiobooks.” *School Library Journal* 44(4): 34–35.
- Bruce, B., J.K. Peyton, 1999. Literacy Development in Network-Based Classrooms: Innovation and Realizations. *International Journal of Educational Technology* .http://www.outreach.uiuc.edu/ijet/v1n2/bruce/index.html
- Flavell, J., 1976. *Metacognitive Aspects of Problem Solving*. N.J.: Erlbaum.
- Flavell, J.H., 1979. Metacognition and Cognitive Monitoring: A New Area Of Cognitive-Developmental Inquiry, 34: 906 - 911.
- Flavell, J.H., P.H. Miller, & S.A. Miller., 2002. *Cognitive Development*. (4th. edit). Upper Saddle River, N.J.: Prentice Hall.
- Goodman, K.S. (1984). ‘Unity in Reading’ In *Becoming Readers in a Complex Society*. Eighty-Third Yearbook of The National Society For The Study of Education: Part I. Chicago: University of Chicago Press.
- Hudson, T., 2007. *Teaching Second Language Reading*. Oxford: Oxford University Press.
- Kress, G. (1985). *Linguistic Processes In Sociocultural Practice*. Oxford: Oxford University Press.

Means, B., & Olson, K., 1995. Leadership For Technology Implementations. In *Technology's Role In Education Reform: Findings From A National Study of Innovating Schools*. Washington, DC: Office of Educational Research And Improvement, U.S. Department of Education.

Meyer, A., D.H. Rose, 2000. Learning To Read In The Computer Age [Online]. Available: <http://www.cast.org/udl/index.cfm?i=18>

Paris, S. G., Wasik, B. A., & Turner, J. C., 1996. *The Development of Strategic Readers*. N.J.: Lawrence Erlbaum Associates.

Peirce, W., 2004. Metacognition: Study Strategies, Monitoring, And Motivation. Retrieved June 5, 2015, From <http://academic.pgcc.edu/~wpeirce/MCCCTR/metacognition.htm#1>.

Wallace, C., 2003. *Reading*. Oxford: Oxford University Press.