

Metacognitive Online Reading Strategies of Adult ESL Learners Using a Learning Management System

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Abstract—In managing online learning, most educational institutions utilize Learning Management Systems (LMS). It is a learning platform that allows the administrators of the institution to manage and monitor learners, teachers and content of courses. Learners of this online learning environment have access to a variety of online learning tools and features that allow them to communicate with peers as well as instructors. Hence, these learners need to be equipped with appropriate learning strategies, particularly metacognitive strategies to help them manage their learning. As for English as a Second Language (ESL) learners, employing appropriate metacognitive strategies may help them regulate, plan, manage and monitor their learning. The study aims to investigate the metacognitive online reading strategies of adult learners of an ESL course at Universiti Technology MARA, Malaysia. A survey was used to gather information of these adult learners in semester one and two. The survey is adapted from the online survey of reading strategies or OSORS developed by Anderson (2003). The results of the survey reveal that the learners mostly used global reading strategies followed by problem solving strategies and support reading strategies. Also, independent t-test reveals that there is no significant difference between semester one and semester two students in using global reading strategies, problem solving strategies and support reading strategies. As indicated by the results of this study, it can be concluded that the learners have learning goals and purpose since they used mainly global reading strategies, but they do not effectively utilize online learning tools and features that are available in the LMS.

Index Terms—metacognitive online reading strategies, socio-constructivist, ESL reading online

I. INTRODUCTION

In managing online learning, most technology-advanced educational institutions in the world utilize Learning Management System (LMSs). It is a system that allows the institution to manage and monitor learners, teachers and content of courses. Due to this relatively new learning environment, most online learning programmes or courses have not yet incorporate pedagogic principles in teaching and learning which leads to unsuccessful learning. In second language learning, where issues such as learner background knowledge determines learning need to be given attention especially in reading. Learners in an online learning environment need to be equipped with appropriate learning strategies. Though online learning may provide the tools and features that may support reading in an online learning environment, the lack of understanding of the reading process and strategies of these autonomous learners in an LMS environment may impede the learning of reading skills. Grounding pedagogy in online learning, (i.e. socio-constructivism) and reading process (i.e. metacognitive online reading strategy) may provide teachers information in designing and developing personalized and effective instructional material.

A. Background

The University Technology MARA (UiTM) offers various online programmes to those who seek to pursue their education in a flexible mode of learning. The programme has 4-5 face-to-face classes per semester and the rest of learning and teaching are done virtually. A learning management system (LMS) has been developed by UiTM as a platform for these learners to learn and interact in an online learning environment at their own pace and convenience.

This LMS, known as i-Class¹ (<http://epji.ined.uitm.edu.my/>), also allows instructors to update or upload relevant information and materials regarding courses offered. Besides that, most importantly, the system also serves as a social network where these learners communicate with each other via the technological support features that are available in the system. Institute of Education Development, UiTM, has been established to ensure the smooth running of the online learning programmes offered by the university.

I-Class can only be accessed by UiTM registered learners and staff. They are given user names and passwords upon registration. These learners and instructors can only logon to their assigned courses and programmes. To connect and interact with the learners, instructors use asynchronous features of i-Class are email, discussion board, forum and bulletin board (See Appendix A). The forum in i-Class, or *i-Discuss*, allows the instructors to post questions or instructions in order to generate a discussion thread (See Appendix B). Learners can upload assignments and store them in *myDrawer* for future references. Learners can obtain description of courses, syllabus and other relevant information through browsing or downloading documents in *myCourse*. Also, they have access to support learning materials that are uploaded by their instructors such as previous examination papers, PowerPoint slides of lecturers, course modules and other relevant documents. Other support learning materials that are made available are *i-Library* that links to digital collections of e-books and e-Journals and *References* for listing related books. For the instructors, they have the access to the control panel to develop online quizzes, upload learning materials and manage the progress of the learners online.

B. Related Theories on Learning Strategies

In language learning, the use of appropriate learning strategy assists a learner to learn more effectively and proficiently. Learning strategy can be defined as deliberate effort or steps taken by a learner to solve learning difficulties during the learning process (Oxford, 1990). Hence, it is paramount for language learners to use appropriate learning strategy to improve and regulate their learning (Anderson, 2002; Anderson, 2003; Carrell, 1998; Chamot, 2005; O'Malley & Chamot, 1990; Oxford, 1990). Oxford (1990, p. 201) further emphasizes that:

'Language learning requires active self-direction on the part of the learners; they cannot be spoon fed if they desire and expect to reach an acceptable level of communicative competence'

Fundamentally, learning strategy can be harnessed to its fullest potential. It depends largely on the learners themselves, but instructors need to tap on the strategies to fully understand the learning process. Tools like survey and inventories give instructors an overview of the learners' potential.

However, there is a shift of focus in language learning strategy use. Researches particularly in language learning have begun to focus on metacognitive skills. Flavell (1979) describes metacognitive strategy as a mechanism that helps learners to monitor and regulate learning. This strategy is perceived as a higher order cognitive skill due to its role in overseeing other cognitive skills (Flavell, 1979). O'Malley and Chamot (1990, p. 44) define metacognitive strategies as, '...higher order executive skills that may entail planning for, monitoring or evaluating the success of learning activity'. To be able to manage and monitor own learning is the determining factor in the success of learning. In L2 learning, metacognitive skills are even more crucial. As Anderson (2002) maintains that, 'Understanding and controlling cognitive processes may be one of the most essential skills that classroom teachers can help second language learners develop.' For ESL learners, to be able to make the distinction between effective and ineffective learning strategy proved to be beneficial. Through metacognitive skills, L2 learners are able to develop improve their learning skills (Anderson, 2002; Grabe, 1991).

C. Learning Strategies in Online Language Learning

In language learning, to be able to read efficiently in the targeted language is a required skill. The reading process, however, involves complex cognitive processes. Researches in English as a second language (ESL) learning indicate that reading skill is crucial because primarily through reading the learner can improve linguistic abilities and learn the structure of the language (Nuttall, 1996). Nevertheless, to achieve comprehension in reading, it is not merely deciphering words and symbols. Successful learners need to apply appropriate reading strategies. Most importantly, in second language (L2) reading, the strategy or ability to monitor and adapt his reading skills during a reading task is the determining factor to successful reading. Based on this finding, researchers such as Anderson (2002) as well as Mokhtary and Sheorey (2002) lay emphasis on the use of metacognitive skills in L2 reading. In further researches on ESL metacognitive skills, they indicate that inculcating awareness and giving training of metacognitive strategies to learners are integral aspects in ESL reading classroom (Carrell, 1998; Cohen, 2003; Cook, 2001).

With the advent of computers and Internet, online language learning creates a new realm, a new learning environment. Learning a language online has become more complex as learners share and gain knowledge at any remote locations (Chapelle, 2001; Felix, 2002; Levy, 1997; Warschauer, 1996; Wyatt, 1984). Though, the learners may be at a distance, they log in to the LMS and use online tools like email, chat, quizzes and forums to communicate. For these online learners LMS is also a means of social networking and sharing of information. Due to this relatively new form of learning environment, numerous researchers investigate in particular ESL reading in an online environment

¹ i-Class was initiated in July 2008 by the Institute of Education Development, UiTM, for learners of online learning programmes. The institute used the LMS framework of Open University Malaysia as the basic code to design and develop i-Class. Based on this framework, online learning features have been added on to fulfill the needs of online learning programmes of UiTM.

(Anderson, 2003; Chapelle, 2001). Though reading is described as a cognitive activity between text and reader, for an online language learner, reading process is a 'social' activity. It is a social activity due to the nature of online learning itself. In online language learning, the learners learn autonomously and interact constantly with peers and facilitators using features available in the LMS. Jonassen (2000) in Huang (2002) indicates that online tools like e-mail, listserves, chat, Bulletin Board System (BBS) allow the learners to express and reflect what they have learned. It also supports negotiation of meaning and constructs personal interpretations of information through the online interactions (Felix, 2002; Huang, 2002). From the socio-constructivist point of view, a person's learning is shaped through his interactions with the people and environment that surrounds him (Vygotsky, 1997). Hence, according to Felix (2005) in order to achieve effective language learning in an online environment, instructors need to consider both the cognitive process as well as the socio-constructivist process. By looking at both the cognitive and socio-constructivist processes of reading in an online learning environment, a sound pedagogical approach that is based on underlining theories can be developed. This will result in a more "humanized and personalised activities" for the autonomous learners (Felix, 2005). In addition, Chapelle (1997) urges that researches on the implementation of technology into the L2 classroom should be an integration of the principles of Second Language Acquisition (SLA) and the technological experiences that CALL has to offer. With this fundamental understanding, the learners will be engaged in any online language learning activities.

D. Overview of the Reading Process and Metacognitive Strategies

Reading process is viewed as a complex mental process of deciphering letters on text. This process, however, is largely dependent on the readers' prior knowledge. This knowledge is constructed by their perception of the world (Carrell, Devine & Eskey, 1988; Nuttall, 1996). Thus, comprehension of text is achieved, once the information that he perceives on the text connects with his prior or background knowledge (Bernhardt, 1991; Nuttall, 1996). This process is an intrapersonal problem-solving task where the reader processes the text and interprets the data received in his mental structures (Bernhardt, 1991). Reading effectively requires the reader to interpret or to decode the message or the purpose of text being presented (Nuttall, 1996). What the writer intends to convey should be interpreted by the reader so that comprehension is achieved. Hence, the ability to read effectively requires effort from the reader in making mental connections between text and his existing knowledge.

The reader achieves comprehension based on the stimulus he gains from the reading material and also the interaction with his background knowledge. This schematic process allows the reader to make his own interpretation of the text (Nuttall, 1996). Anderson and Pearson (1984) describe this mental process as the interaction with the reader's schemata, which is regarded as old knowledge interacting with new knowledge in a text (Anderson & Pearson, 1984; Carrell, Devine & Eskey, 1988). When the reader manages to find the link or a place for this new information, comprehension is achieved. Schema theory is the basis for the three reading models: top-down model, bottom-up model and interactive model (Nuttall, 1996). "Top-down" reading model describes that the reader uses his experiences or knowledge of the world and brings it to the text. On the other hand, when the reader builds up his interpretation of the text by recognizing the letters, words and sentences, he is applying "bottom-up" reading model. However, these two processes are not exclusive from one another. Most of the time, the reader consciously or subconsciously switches from one process to another and back again. Swaffar, Arens and Byrnes (1991) further describes that the three models are highly interactive especially of fluent readers. Therefore, it is the schemata that differentiate between L1 and L2 readers due to the pre-existing culture, experience and knowledge (Grabe, 1991).

On the other hand, activating the right schema is not the only factor in successful reading. Readers have to apply appropriate reading strategies to help them achieve comprehension. Reading strategies are unconscious or at certain conditions deliberate actions done by the reader to achieve a desired reading task (Carrell, 1998). Even more importantly, having metacognitive skills is critical in the reading process (Grabe, 1991; Swaffar, Arens & Byrnes 1991). Grabe (1991) identifies metacognitive knowledge and monitoring skills as one of reading components of fluent L2 readers. He highlights the fact that fluent readers use their metacognitive skills more effectively compared to less fluent readers. In L2 learning, Krashen (1987, 1988) also argues that this ability to edit linguistic output in a communicative setting is vital. The success of an L2 learner is profoundly affected by his ability to monitor or edit his own learning process (Krashen, 1987, 1988). Having metacognitive skills therefore proved to be ubiquitous in L2 reading.

Due to the importance of metacognitive skills in L2 reading, several researchers have listed and categorized these skills. Researchers like Mokhtari and Sheorey (2002, p. 4), categorize metacognitive strategies into the following:

1. Global reading strategies - readers carefully plan their reading by using techniques such as having purpose in mind and previewing text.
2. Problem solving strategies - readers work directly with text to solve problems while reading such as adjusting speed of reading, guessing meaning of unknown words and rereading text.
3. Support strategies - readers use basic support mechanisms to aid reading like using dictionary, highlighting and taking notes.

Mokhtari and Sheorey (2002) also developed an instrument called Survey of Reading Strategies (SORS), that is aimed to elicit metacognitive skills information from L2 students. The information gained from the survey is used to make the learners aware of their reading strategies and also for the teachers to prepare better reading lessons (Mokhtari & Reichard, 2002). Anderson (2002) on the other hand, classifies metacognitive reading strategies of L2 learners into five primary components:

1. preparing and planning for effective reading
2. deciding when to use particular reading strategies
3. knowing how to monitor reading strategy use
4. learning how orchestrate various reading strategies
5. evaluating reading strategy use

With regards to online reading for the L2 learners, Anderson (2003) developed Online Survey of Reading Strategies (OSORS). This survey is an adaptation of Mokhtari and Sheorey's (2002) categorization of metacognitive strategies for ESL learners. This survey contains 38 items (18 items on Global Strategies, 11 on Problem Solving Strategies and 9 items on Support Strategies). This survey, essentially, measures or describes the ESL learners' metacognitive reading online strategies.

II. STATEMENT OF THE PROBLEM

A number of researchers have investigated the distance online learning programme at UiTM. Recent researches on these adult distance learners of UiTM online learning programmes indicated that the learners expressed preference to the traditional face-to-face classes (Alias & Jamaludin, 2005; Hashim, Ahmad, & Abdullah, 2009). A survey revealed that these learners were anxious and unfamiliar with the customized features in i-Class. Thus, using the LMS proved to be an intimidating task in spite of the high level of computer literacy among the students (Hashim, Ahmad, & Abdullah, 2009). This contradictory finding suggests that more investigation should be done on the learners as well as the LMS itself. Moreover, the dependency on instructors reveals the fact that the learners were not equipped with learning strategies that required them to be autonomous. Merriam (2004) advocate that for adult learners to be successful in their learning they need to be self-directed and have the capability to monitor their own learning. However, Alias and Jamaludin (2005) found from a study of three local universities, including UiTM, that offered distance online learning to adults, these learners lacked the metacognitive skills that were essential for self-monitoring and regulating their learning. As O'Malley and Chamot (1990) mention that this self-monitoring and evaluating skills or metacognitive strategies ensures the learners stays on right path of learning.

The above studies reflect the need to investigate the online learning needs of the learners in an LMS environment particularly their metacognitive skills. The LMS of UiTM contains features that are state-of-the-art. However, the learners fail to take advantage of these features to help them learn (Hashim, Ahmad, & Abdullah, 2009).

III. OBJECTIVE OF THE STUDY

Therefore, the objective of the study is to investigate the metacognitive online reading strategies of adult learners of an ESL Reading online course of University Technology MARA, Malaysia. Online survey of reading strategies or OSORS developed by Anderson (2003) has been adapted to gather information the metacognitive strategies employed by these adult learners. Therefore, the study seeks to answer,

1. What are the most used metacognitive online reading strategies employed by the adult learners?
2. What are the least used metacognitive online reading strategies employed by the adult learners?
3. What is the overall metacognitive online reading strategy employed by the adult learners?
4. Is there a significant difference between the two groups (semester 1 and 2) of adult learners in using metacognitive online reading strategies?

IV. METHODOLOGY

A. Location

The study was conducted in University Technology MARA (UiTM) campus in Shah Alam. The survey was distributed by the researcher in face-to-face seminar sessions.

B. Participants

Every year in the Shah Alam campus, the Faculty of Public Administration receives approximately 200-350 *bumiputera* learners which is the largest number of adults enrolled in UiTM online learning programme. Therefore, adult learners of Diploma of Public Administration of Semester 1 and 2 from the Faculty of Administration Science and Policy Studies, UiTM Shah Alam, were selected to participate in this study. These learners were selected since the learners from this faculty make up the largest group of learners compared to the other programmes every year. A total of 157 learners of 229 learners, which is 68.6%, responded to the questionnaire. 92 learners out of 151 learners from semester 1 responded to the questionnaire. While, 65 learners out of 78 learners from semester 2 responded to the questionnaire. The percentages of learners who answered the questionnaire are 60.9% and 83.3% respectively. The majority of the respondents are females. They make up 73.2% which is 115 out of 157 respondents. 74.5% of these respondents are in the age group of 20 – 30 years old.

The learners are a homogenous group since they go through similar courses offered by the faculty in semester one and two. Among the compulsory courses are English as a Second Language Proficiency courses. These courses are Consolidating Language Skills (BEL 120) for semester 1 and Preparatory Course for Malaysian University English Test

(BEL 260) for semester 2 in order for them to earn a Diploma and qualify for a Bachelors programme. For each course, there is a reading component that is geared towards reading for academic purposes.

C. Procedure

The data were collected from learners who were in the first and second semester. The process of gathering data using the survey began in the middle of the semester. By the middle of the semester, the learners were familiar with the LMS system, i-Class. This is because the length of time permits the learners to learn about the technological support features that are available in the system as well as be acquainted with their peers and facilitators.

D. Instruments

The study adapted a survey of metacognitive strategies called Online Reading Strategies (OSORS) developed by Anderson (2003). OSORS consists of statements of descriptions of behaviors or preferences while reading online (Anderson, 2003). Anderson (2003) describes reading as, 'Reading should be an active, fluent process that involves the reader and the reading material in building meaning'. The survey originally has 38 items (18 items on Global Strategies, 11 on Problem Solving Strategies and 9 items on Support Strategies). However, for the purpose of the research, 3 Global Reading Strategies statements have been omitted so that the questionnaire is focused on online reading in an LMS environment. Also, the Likert scale of the questionnaire, has been changed from 1-5 to 1-4 so that the students will have to be decisive in their responses instead of choosing 3- which means 'I am not sure'.

V. DATA ANALYSIS

The data from the survey was analysed using SPSS Version 14 programme. Descriptive statistics were used to answer the research questions. In order to determine the most and least used strategy, tests of mean and standard deviation were used. To interpret the mean score of the strategy used, the study referred to Anderson (2003) and Mokhtari and Reichard (2002) scoring guide which indicates that, high use of strategy if the mean of 3.5 or higher, moderate use if the mean of 2.5 to 3.5 and low use if the mean of 2.4 or lower. The third research question used coefficient of variation test to identify the overall strategy type used the learners. Finally, the fourth research question, which is to determine the significant difference between the two groups of learners, independent t-test was used.

VI. RESULTS AND DISCUSSION

It is found that, overall the learners mostly used global reading strategies followed by problem solving strategies and support reading strategies. The following section addresses in detail the research questions of the study.

Research Question 1: The most used metacognitive online reading strategies employed by the adult learners

The following table lists the top ten most used strategies of the learners.

TABLE 1:
MOST USED STRATEGY (TOP TEN)

No.	Strategy	Item	Mean	Std. Deviation	Strategy Types
1	1	I have a purpose in mind when I read online.	3.35	.678	GLOB
2	6	I read slowly and carefully to make sure I understand what I am reading online.	3.19	.662	PROB
3	7	I try to get back on track when I lose concentration.	3.18	.665	PROB
4	32	When online text becomes difficult, I pay closer attention to what I am reading.	3.18	.741	PROB
5	20	I print out a hard copy of the online text then underline or circle information to help me remember it.	3.12	.842	SUP
6	21	When reading online, I decide what to read closely and what to ignore.	3.10	.705	GLOB
7	14	When online text becomes difficult, I re-read it to increase my understanding.	3.10	.672	PROB
8	13	I check my understanding when I come across new information.	3.04	.715	GLOB
9	12	I go back and forth in the online text to find relationships among ideas in it.	3.02	.738	SUP
10	11	I try to picture or visualize information to help remember what I read online.	3.00	.707	PROB

From the above table, it is observed that Global Strategy has the highest mean compared to the other strategies with the mean of 3.35. The learners indicated that the when they are assigned an online reading task they need to have a purpose. Mokhtari and Reichard (2002) describes that Global strategies are '...intentional, carefully planned techniques by which learners monitor and manage their reading...' (p. 4). Since, these learners are adult learners, to have a sense purpose or goal that is paramount in any task that they do. Merriam (2004) describes adult learners not only can direct their own learning, they also have learning needs that are related to their social roles and driven by internal motivation.

From the data, adult learners highlighted moderately other two Global Strategies which are: they decide what to read closely and what to ignore (mean = 3.10) and they check their understanding when they come across new information (mean = 3.04). The use of these two strategies suggests that these learners have decisive goals in approaching their reading tasks.

Out of the top ten most used strategy, five strategies are Problem Solving Strategies, the mean is between 3.19 – 3.00, which is considered as moderate use of strategy. Further analysis of the list of strategies, the study's top Problems Solving Strategies is found similar, though not in the same order, to that Anderson's (2003) study of ESL learners top three Problem Solving Strategies. The strategies are, 'I read slowly and carefully to make sure I understand what I am reading online', 'I try to get back on track when I lose concentration' and 'When online text becomes difficult, I pay closer attention to what I am reading'. It is important to note that there are 11 Problem Solving strategies in the survey and these studies rank the 3 strategies as among the most used strategies. This similarity suggests that the three strategies are notably common for ESL learners. In EFL context, a study which is conducted on postgraduates of a local university also revealed that the learners utilized problem solving strategies in reading (Fatema, Maasum, & Noor, 2010). The study found that problem solving strategies have the highest mean compared to Global and Support strategies. Findings from these studies support the notion that language learners mostly use Problem Solving Strategies in their reading. Therefore, in the case of this study, even though Global Strategy has the highest mean, it can be concluded that the learners also employ several distinctive Problem Solving Strategies in reading online.

From the survey, the learners also indicated that they prefer to print out a hard copy or to circle information to help them read online. This Support Strategy has a mean of 3.12. Though it has the moderate mean, it shows that some learners prefer to read the printed text and write on the text. This finding implies that they want and require this feature to be accessible when it comes to reading online. An earlier study on designing multimedia environment for ESL reading by Chun and Plass (1997) suggest that learners should not be forced to use a particular feature of the text but instead be given options for which media they prefer. Hence, as far as metacognitive strategy allows learners plan and monitor his learning, having related online features in reading online would further assist the construction of meaning and comprehension of text.

Research Question 2: The least used metacognitive online reading strategies employed by the adult learners

The following table shows the bottom five least used strategies of the adult learners.

TABLE 2:
LEAST USED STRATEGY (BOTTOM FIVE)

No.	Strategy	Item	Mean	Std. Deviation	Strategy accessible
1	2	I participate in live chat with other learners of English.	2.27	.909	GLOB
2	5	When online text becomes difficult, I read aloud to help me understand what I read.	2.34	.959	SUP
3	31	I adjust my reading speed according to what I am reading online.	2.75	.792	PROB
4	3	I take notes while reading online to help me understand what I read.	2.75	.903	SUP
5	10	I use context clues to help me better understand what I am reading online.	2.84	.730	GLOB

Based on the scoring guide, mean of 2.4 and below is considered low. Analysis of mean of the strategies used, revealed that two strategies have the mean below 2.4. The strategies are 'I participate in live chat with other learners of English' (mean = 2.27) and 'When online text becomes difficult, I read aloud to help me understand what I read' (mean = 2.34). Therefore, the lowest mean (2.27) is a Global strategy that indicates these learners do not engage themselves in synchronous interaction when they are logged on to the LMS. This scenario may result from the absence of chat feature in the LMS. However, some learners may still interact with other learners using chat features in other platforms like Yahoo Messenger or Skype.

The Support Strategy that the learners seldom use are to read aloud when online text becomes difficult, (mean = 2.34) and take notes while reading online (mean = 2.75). Support Strategies are basic support mechanisms intended to aid the reader in comprehending the text such as using a dictionary, taking notes, underlining, or highlighting textual information. In reading online, learners may want to have features that enable them to manipulate the text to help them understand the text. Unavailability of these features may demotivate them from completing a reading task. Nevertheless, it does not mean they ought to be given highly interactive hypertexts. A qualitative study on the use of metacognitive strategies in accessing and studying hypertext material online on undergraduates of two local universities, regarded hypertexts as troublesome and confusing (Rahman, Yassin, Ishak, & Amir, 2008). The study suggests it is more important to equip these learners with online learning skills to help them learn effectively in a hypermedia learning environment. For instructors, selecting appropriate support mechanisms for effective reading online helps these learners have meaningful reading online experience.

Research Question 3: The overall metacognitive online reading strategy employed by the adult learners

In order to answer this research question, the study uses coefficient of variation test to compare the degree of variation from one series of means to another. The formula is,

$$\text{Coefficient of Variation (CV)} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

The smaller the value of CV, the smaller the chances of having variation of means and thus shows more stability in the data. The following illustrates the results of comparing the degree of variation means of metacognitive online reading strategy employed by the adult learners,

TABLE 3:
OVERALL METACOGNITIVE ONLINE READING STRATEGY

Strategy Types	N	Mean	Std. Deviation	CV
GLOBAL	157	52.85	8.34	15.7%
PROBLEM SOLVING	157	29.82	5.20	17.4%
SUPPORT	157	20.82	3.56	17.2%

The results show that Global Strategy has the lowest CV value (15.7%) compared to Problem Solving Strategy (17.4%) and Support Strategy (17.2%). As far as the three strategy types are concerned, Global Strategy has more consistency in variation of means which indicates that the learners when doing reading online tasks they consistently employ Global Strategy compared to the other two strategies.

Research Question 4: Differences between the two groups (semester 1 and 2) of adult learners in using metacognitive online reading strategies

The study also determines whether there is a significant difference between the two groups (semester 1 and 2) of adult learners in using metacognitive online reading strategies. The test is administered because there may be a potential difference in strategy use in reading online when taking into account the period of time that the learners are exposed to the LMS. The table below describes the data,

TABLE 4:
DIFFERENCES BETWEEN SEMESTER 1 AND 2 OF ADULT LEARNERS IN USING METACOGNITIVE ONLINE READING STRATEGIES

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
SUPPORT	Equal variances assumed	1.972	.162	.469	155	.640
	Equal variances not assumed			.483	149.942	.630
PROBLEM SOLVING	Equal variances assumed	8.097	.005	.541	155	.589
	Equal variances not assumed			.565	153.685	.573
GLOBAL	Equal variances assumed	3.920	0.49	.001	155	.999
	Equal variances not assumed			.001	152.773	.999

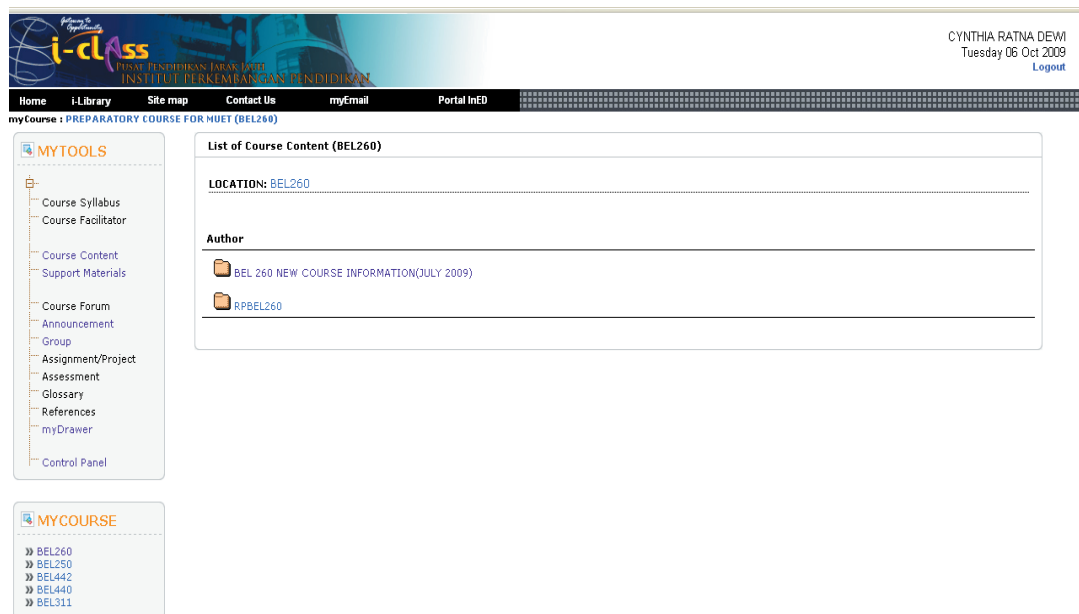
It is found that, in using the three types of metacognitive online reading strategies between semester one and two there is no significant difference. The test reveals that the three p-values (Support Strategy 0.640, Problem Solving Strategy 0.589, Global Strategy 0.999) are greater than 0.05 level of significance. This result shows that the period of time learners are exposed to the online learning environment (i.e., LMS – i-Class) may have not influenced the use of metacognitive strategies. These learners though coming from different semesters they employ basically similar strategies to tackle their reading online tasks since they learn within the same learning environment for both semesters.

VII. CONCLUSION

The analysis of the data reveals that strategy use is subjective to the learners themselves and the learning environment that they are engaged in. What is accessible to them, in terms of learning facilities within the learning environment, determines how they plan and regulate their learning. In the case of this study, the learners may have the appropriate metacognitive strategies to help them read online, however, the learners also depend on the online features that are available. Though the learners may come from different background, cultures and social roles, through the available technological features, online learning has the potential to meet these needs. The needs are found in the process of learning. Vygotsky's claim to observe the process rather the product is fundamental to the establishment of higher forms of learning (Wertsch & Tulviste, 1992). Therefore, the link between the cognitive processes of the learners and the socio-constructivist approach in online learning may provide the answers to an ideal online learning experience for the autonomous learners.

Hence, investigating strategy use of the learners offers possibilities not only to the researchers, instructors but also to learners on ways to improve reading online. With such knowledge, learners can improve their reading and ultimately learning the targeted language. Metacognitive strategies as mentioned by previous researchers such as Anderson (2002), Carrell (1989), Cohen (2003) as well as Mokhtari and Sheorey (2002) proved to be crucial in second language learning. With effective use of the strategies, learners are able to regulate and monitor their learning which is even important for distant learners online. As for the instructors, such information will assist in creating a more conducive learning environment so that these distant adult learners are more engaged especially in reading online. Through investigating the metacognitive skills in an LMS environment it is hoped that the findings will give suggestions for best practices for educators in developing better learning experiences for online learners.

APPENDIX A



i-class
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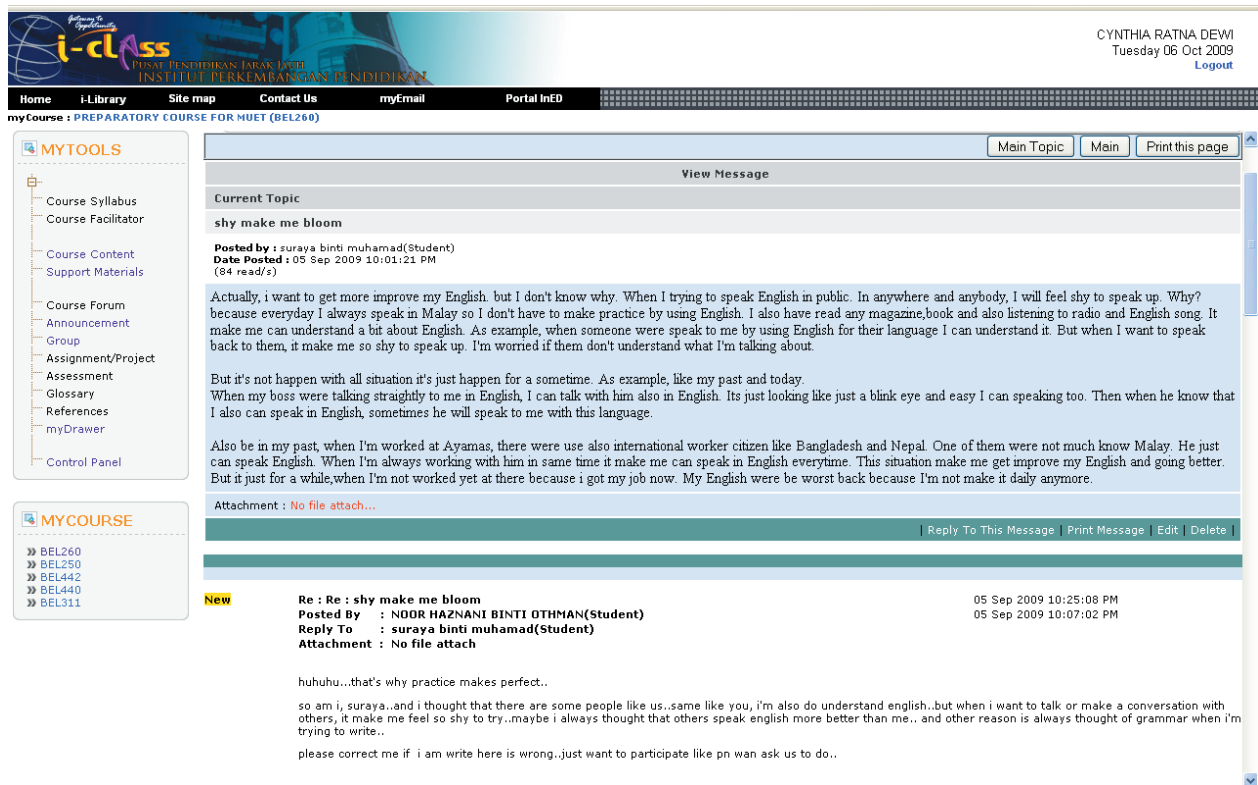
LOCATION: BEL260

Author

- BEL 260 NEW COURSE INFORMATION(JULY 2009)
- RPBEL260

Features available in i-Class, UiTM

APPENDIX B



i-class
PUSAT PENSIKILAN JARAK JAUH
INSTITUT PERKEMBANGAN PENDIDIKAN

CYNTHIA RATNA DEWI
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myCourse : PREPARATORY COURSE FOR MUET (BEL260)

MYTOOLS

- Course Syllabus
- Course Facilitator
- Course Content
- Support Materials
- Course Forum
- Announcement
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MYCOURSE

- BEL260
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- BEL442
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View Message

Current Topic

shy make me bloom

Posted by : suraya binti muhamad(Student)
Date Posted : 05 Sep 2009 10:01:21 PM
(84 read/s)

Actually, i want to get more improve my English. but I don't know why. When I trying to speak English in public. In anywhere and anybody, I will feel shy to speak up. Why? because everyday I always speak in Malay so I don't have to make practice by using English. I also have read any magazine,book and also listening to radio and English song. It make me can understand a bit about English. As example, when someone were speak to me by using English for their language I can understand it. But when I want to speak back to them, it make me so shy to speak up. I'm worried if them don't understand what I'm talking about.

But it's not happen with all situation it's just happen for a sometime. As example, like my past and today.

When my boss were talking straightly to me in English, I can talk with him also in English. Its just looking like just a blink eye and easy I can speaking too. Then when he know that I also can speak in English, sometimes he will speak to me with this language.

Also be in my past, when I'm worked at Ayamas, there were use also international worker citizen like Bangladesh and Nepal. One of them were not much know Malay. He just can speak English. When I'm always working with him in same time it make me can speak in English everytime. This situation make me get improve my English and going better. But it just for a while,when I'm not worked yet at there because i got my job now. My English were be worst back because I'm not make it daily anymore.

Attachment : No file attach...

Re : Re : shy make me bloom
Posted By : NOOR HAZNANI BINTI OTHMAN(Student)
Reply To : suraya binti muhamad(Student)
Attachment : No file attach

05 Sep 2009 10:25:08 PM
05 Sep 2009 10:07:02 PM

huhuhu...that's why practice makes perfect..

so am i, suraya..and i thought that there are some people like us..same like you, i'm also do understand english..but when i want to talk or make a conversation with others, it make me feel so shy to try..maybe i always thought that others speak english more better than me.. and other reason is always thought of grammar when i'm trying to write..

please correct me if i am write here is wrong..just want to participate like pn wan ask us to do..

Sample of a forum thread in i-Class, UiTM

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