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**Using Web-Based Resources in Reading Comprehension in a Rural Primary School**

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**Abstract**

The study investigated the use of web-based resources to motivate students in reading comprehension. It was also aimed at finding out students' responses and perceptions to the use of web-based resources in reading comprehension. Thirty Year 5 students in a rural primary school were investigated in this study. Observations and focus group interviews were employed to collect data. Eight classroom observations were carried out using observation forms while fifteen students were selected from the class for the interviews. The observation data were analyzed based on the categories and items found in the observation form. The interview data were transcribed and analyzed into themes emerged from the transcription. Three themes, namely positive attitude, active learning and student-centred emerged from the study. The results for both methods of data collection showed that students were motivated when exposed to web-based learning experience. Based on the findings, the study recommends that ESL educators adopt web-based resources to teach reading comprehension as well as other language skills.

**KEYWORDS:** web-based resources, web-based learning, reading comprehension, rural school, English as Second Language (ESL)

## **Introduction**

According to Burns, Roe and Smith (2002), the ability to read is important to function effectively in a literate society. The Malaysian government has consistently increased efforts to encourage more students to read as reading is an important element of academic literacy (Kaur & Thiagarajah, 1999). However acquiring reading comprehension is a very challenging task especially in rural schools. The majority of students have difficulties in understanding a text and they are not interested in reading comprehension lessons. Furthermore students' comprehension input may not be sustained as reading is seen as a passive activity by the majority of them.

As ESL educators, we should consider various approaches available to teach reading comprehension instead of solely depending on textbooks in order to encourage students to read. As the use of ICT in classrooms is currently being emphasized, one of the ways that can be adopted by ESL teachers to teach reading comprehension is the use of web-based resources. Web-based resources have colours, pictures, sounds, animations and video clips which are interactive, user-friendly, motivating and fun (Shneiderman, 1998). It is more flexible than print-based resources and a better option for independent learning.

The main objective for conducting this study was to investigate the use of web-based resources in reading comprehension. Specifically, the study intended to investigate:

Whether the use of web-based resources motivate students in reading comprehension.

Students' responses and perceptions to the use of web-based resources in reading comprehension.

Thus, the following research questions were formulated in order to meet the objectives:

- Does the use of web-based resources motivate students in reading comprehension?
- What are the students' responses and perceptions to the use of web-based resources in reading comprehension?

## **Related Literature**

### ***Reading Comprehension***

Reading comprehension is viewed as a process of comprehending a text which integrates decoding ability, vocabulary cognition, prior knowledge of the topic and appropriate strategies (Kintsch & Kintsch, 2005). If ESL educators can understand the process of comprehension, then they are able to teach students to comprehend effectively. According to Blanton (1990), students have not developed proficiency because they lack background in comprehending texts and dwell outside of the world of texts. Therefore, it is good if teachers assist students to create comprehension by providing stimulating tasks to create a bridge between students and the language. Shanahan (2005) further maintains that we must make a distinction between strategy and skill. Skills can be learned and people can be trained to acquire them, while strategies are applied with deliberate effort according to the demands of particular purposes and needs. A tremendous improvement in reading comprehension can be seen after a few months if systematic teaching strategies are applied (Daniel, 2007). Thus systematic teaching reading comprehension should be carefully planned.

### ***Language Reading Model***

A reading model known as the Interactive model was proposed by Rumelhart (1977) to explain the reading process. Comprehension is said to occur in this interactive model as the

reader approximates the writer's ideas and constructs a mental text from the physical text (Maria, 1990). The reader is actively selecting relevant information from a text, and a mental representation of its linguistic and semantic content is constructed which entails the interaction between the reader and the text. It is closely related with the schema theory as comprehension is actually inputting some amount of information and searching for the schemata illustrating the information. When the schemata are found, comprehension is said to be generated. Using web-resources in reading comprehension allows readers to interact with the web-based texts actively by using links and hypermedia.

### ***Information and Communication Technology (ICT)***

Larson (2009) suggested that educators should provide opportunities for students to learn within a technology-based atmosphere. In order to encourage greater integration of ICT to enhance the effectiveness of education and training programme, the ICT Master Plan of our country which was finalized in 2001 states that the Malaysian government has introduced various initiatives (Chan, 2002). Malaysia has put in considerable effort by revising the school curriculum in order to ensure ICT is integrated with teaching and learning. Privateer (1999) states that ICT supports more effective pedagogy and adds value to education. ICT potentially raises educational quality by making the process of teaching and learning into an engaging and active process. ICT can help to create more motivated learners in an ESL classroom (Miller, 2005). Thus, ESL educators should be encouraged to adopt ICT into teaching and learning settings.

### ***Web-based Resources and Reading***

The use of computer technology as a medium for language learning is increasingly being emphasized in the school curriculum. Many language teachers have attempted to incorporate online reading materials and activities in second and foreign language lessons (Brandl, 2002; Kasper, 2000; Liou, 1997). Furthermore, the Internet has gradually become a source of students' school-based and personal reading (McPherson, 2005). Integrating online reading resources into reading classes makes it possible to attain higher motivation and more effective reading comprehension (Brandl, 2002). Natashi and Clements (1994) as cited in Voogt and McKenney (2007) say that students' creativity, problem-solving abilities, self-confidence are also improved using web-based learning. Thus, it is worthwhile to promote reading using web-based resources in ESL classrooms.

Students are provided with an inquiry-based and constructivist learning environment if they are exposed to current and authentic information uniquely available through websites (Oliver, 2000). In addition, students can explore reading and the comprehension questions without being afraid of making mistakes using web-based resources (Voogt & McKenney, 2007). In other words, reading web-based resources help to create a supportive learning environment for students to interact with the web-based texts and construct their own understandings after reading them. Students are encouraged to take responsibility over their reading and learning in the supportive learning environment. Therefore, web-based learning is often learner-centred using a variety of authentic resources. Web-based learning 'provides candidate information to be engaged and interpreted' which differs from textbook teaching and learning (Hill & Hannafin, 2001). Hamilton and Cherniavsky (2006) also agree that reading web-based resources encourages learners' engagement in learning.

Martinex (1997) indicates that interactive technology in the form of interconnected texts with links to word definition, background information and comprehension questions, has been used to enhance different aspects of second language reading processing. The linking features of online texts encourage readers to interact with the text. These features allow students to select and read online texts which create interest and support students' understanding of content and knowledge about the world (Meskill, Mossop & Bates, 1999). Besides, there is an abundance of resources available on the web within easy clicks of a computer mouse. It is also possible to read text with many pages on the web (McPherson, 2005).

Kramarski and Feldman (2000) carried out a similar study on the use of web-based texts in reading comprehension lessons. Focusing on students' motivational attitude, the data of observation shows that students were enthusiastic towards the technological tool and they were willing to continue and engage in the lesson when the lesson was finished. Students' positive attitudes reflect a simple fact: students were motivated towards the use of web-based texts in reading comprehension.

Although the advantages of using web-based resources in reading classrooms are recognized in previous studies, its disadvantages cannot be ignored. McPherson (2005) states that some students may be confused while navigating the links. This is because some students, especially those who have poor language abilities may not be able to read independently using web-based resources. Thus, it is important to have teachers' guidance although students are encouraged to read independently using web-based resources.

Another significant issue is students' access to web-based resources which is also a major concern of this study. As students in rural areas usually do not have the same level of access to resources as students who are from suburban or urban areas (Rakes, Fields, & Cox, 2006), many students in rural schools are not exposed to the use of web-based resources in reading classrooms although it is well recognized as an effective and motivating learning tool. This is directly related to the fact that many of them are from less privileged backgrounds (Riley, 2002).

### **Methodology**

This research adopted a case study design. A qualitative method was employed through observations and focus group interviews. Two methods of data collection were used to enhance the validity of the data (Nunan, 1994) Eight lessons were carried out in this study and each lesson was observed. Besides, focus group interviews were carried out after the completion of the eight lessons.

### ***Population and Sample***

The population of this study comprised a Malaysian rural school located in Batu Kurau, Perak. There were 145 students studying in this school and all of them were Malays. The study focuses on a Year 5 class. There were thirty students in the class and they were of mixed ability in terms of language. Thirty of them were selected as samples for classroom observations. For the focus group interview, fifteen students were selected from the class by using a purposive sampling method. Purposive sampling was done by categorizing students into three categories: good, average and poor based on their previous final exam English language results. Then five students were selected from each category. These students were

divided equally into three groups for the interview. Focus group A refers to students with good English proficiency. Focus group B refers to students with an intermediate level of English proficiency while focus group C refers to students with poor English proficiency

### ***Procedure for Data Collection***

The study was carried out for two months and eight lessons were administered. The topics and titles of each lesson were carefully planned based on level of difficulty. The selection of the topics was based on the topics which were found in the Year 5 English textbook in order to fit the materials into the syllabus. For the purpose of this study, only web-based reading materials which are in the form of text were chosen. Besides, criteria such as the length of the text, the difficulty of the language and the reading comprehension questions prepared were looked into before the materials were used. As the study was carried in a rural primary school, opinions from an English expert from a nearby rural school were considered in selecting the appropriate texts. The topics are presented in Table 1:

Table 1. Topics and titles of lessons

<b>Lesson</b>	<b>Topic/Title</b>
Lesson 1	Travel and Adventures (Sabah)
Lesson 2	Saving Our Environment (What is Air Pollution?)
Lesson 3	Animals and Us (Elephants)
Lesson 4	Bountiful Harvest (Coconut History)
Lesson 5	Glorious Food (Malay Food in Malaysia)
Lesson 6	Culture and Traditions (Lion Dance)
Lesson 7	What game do you play? (Top Spinning)
Lesson 8	Where do you live? (Longhouses)



The data collection methods were primarily based on two instruments, namely the observations and the focus group interviews. For every lesson, the observations were carried out using observation forms (Appendix 1) during the lessons. There were some guiding statements on the observation forms. The guiding statements on the observation forms were piloted to group of students of similar qualities in order to ensure the guiding statements can guide the researchers to observe students and the situation of learning properly. Observable features were recorded and they were written as short phrases on the observation form to describe the relevant statements. Observations were carried out to investigate whether the use of web-based resources motivate students in reading comprehension.

To increase the reliability of the research findings, 15 students from the class were selected for focus group interviews after the completion of eight lessons. These students were divided into three groups equally according to their English language abilities. One interview session was administered for each group using structured interview questions (Appendix 2). The interview questions were carefully planned with the aid of English Language experts to ensure the questions could be understood and answered by the students. Besides, the structured interview questions were tested with a mixed ability group of six students before carrying out the actual interview with the selected students for this research. The interviews were done to examine students' responses and perceptions on the use of web-based resources in reading comprehension.

### **Data Analysis**

Firstly, observation data were collected from eight lessons using the observation forms. The data were analyzed according to three categories and eight items in the observation forms.

Focus group interviews were carried out after completing the eight lessons using structured questions. The interview data were transcribed, and a few themes emerged for data analysis. The findings for the research questions were elaborated in detail after the analysis for both data collection method.

## **Results**

### ***Observation***

Observations were carried out to investigate whether students were motivated with the use of web-based resources in reading comprehension. Students' motivation in learning is strongly related to students' thinking, feeling and action (Conley & Karabenick, 2006). In relation to this, Conley and Karabenick (2006) suggest a few motivation-related measures including students' self efficacy, their personal interest, and general achievement goals. For the purpose of this study, these motivation-related measures are adopted as the benchmarks of students' motivation towards the use of web-based resources in reading comprehension. Self-efficacy refers to students' belief in which they have the supplies and confidence to accomplish a specific task while personal interest refers to students' individual attraction to a particular activity (Pintrich & Shunck, 2002). For the purpose of this study, general achievement goals refer to students' mastery of learning. Observation data were categorized and analyzed as shown in Table 2:

Table 2. Observation categories and items

Categories	Items
Self-efficacy	1. Response towards the text shown.
	2. Response towards the worksheet.
Personal Interest	3. Participation during shared reading.
	4. Participation during question and answer session.
	5. Participation during discussion of answers.
General achievement goals	6. Independent reading.
	7. Independent searching for meaning of unfamiliar words.
	8. Completion of tasks.

The following tables present the observations by the researchers on students' motivation towards reading comprehension activities using web-based resources. The results are presented according to the observation categories and items.

### *Self-efficacy*

#### Response towards the text shown

It was noted from the observations that students showed interest and confidence when the web-based texts were shown to them for all the lessons except for lesson 2. The topic for lesson 2 was *Saving Our Environment* (Air Pollution). It is possible that the topic was too complex for the students to connect with their daily lives and the text itself was not attractive to the students.

Table 3. Observation on students' motivation to respond towards the text

Observation	Notes
Lesson 1	Half of the class started to ask questions about the topic of the text, they were interested in the text.
Lesson 2	Only a few students looked at the text, most of them were busy chatting.
Lesson 3	About 10 students pointed to the text and talked excitedly to their friends about the topic.
Lesson 4	More than 10 students started to ask questions about the topic of the text.
Lesson 5	Some of the students pointed at the text and talked to their friends about the topic and pictures.
Lesson 6	About 15 students started to ask questions about the topic and the text.
Lesson 7	Most of them looked at the text and discussed about the topic with each other.
Lesson 8	Half of the class started to ask questions about the topic of the text.

### Response towards the worksheet

Overall, the observation data for this category show that students showed initiative to do the worksheets when the worksheets were distributed. Most of them could answer the worksheets with full concentration and interest. They had the confidence to complete the worksheets. As for lesson 2, the situation was different. Most of the students were not really keen to answer the questions.

Table 4. Observation on students' motivation to respond towards the worksheet

Observation	Notes
Lesson 1	Half of the class did the worksheets quietly once they received the worksheets. The others were able to concentrate in doing the worksheets after they had finished discussed about the topic.
Lesson 2	About 10 students were busy chatting with their friends; some other students were doing something else instead of answering the worksheets.
Lesson 3	All of the students started to do the worksheets quietly.
Lesson 4	Most of the students did the worksheets quietly until they finished the questions.
Lesson 5	Most of the students were engrossed while doing the worksheets.
Lesson 6	All of the students did the worksheets with full concentration without talking to each other.
Lesson 7	Half of the class were still discussing the topic of the text while doing the worksheets. But they finished the worksheets cheerfully.
Lesson 8	Half of the class could do the worksheets without any assistance from the teacher once they received the worksheets.

### *Personal Interest*

#### Participation during shared reading

From the observations, the majority of the students were eager to read the texts during the shared reading. However, lesson 2 had a negative response from the students which is to be expected as the students did not show interest towards the text.

Table 5. Observation on students' motivation to participate during shared reading

Observation	Notes
Lesson 1	Many students put up their hands to read.
Lesson 2	Only four students volunteered to read.
Lesson 3	About 10 students volunteered to read and the selected students read the text loudly.
Lesson 4	Half of the class put up their hands to read.
Lesson 5	About 10 students volunteered to read.
Lesson 6	The volunteers read enthusiastically and the rest read on their own.
Lesson 7	All of the students read on their own while the volunteers read the text.
Lesson 8	Many students put up their hands to read, some of them even asked the teacher to let them read.

#### Participation during question and answer session

Question and answer sessions were done successfully as it was observed that overall there was good participation from the students except for in lesson 2. Only a few students participated to give answers in this lesson. As they were not interested in the text, they did not really take the initiative to understand the text. Hence, they could not answer the questions that were being asked.

Table 6. Observation on students' motivation to participate during the question and answer session

Observation	Notes
Lesson 1	Students participated actively; about 10 students put up their hands to answer the questions.
Lesson 2	Only 3 students put up their hands to answer the questions, the teacher had to call their names to get their answers.
Lesson 3	Students participated actively, half of the class put up their hands to answer the questions, some of the students even asked for a chance to answer.
Lesson 4	Students participated well, more than 10 students put up their hands to answer.
Lesson 5	Good student participation, about 15 students put up their hands to attract the teacher's attention, and the selected students answered the questions accordingly.
Lesson 6	Very good student participation, about 10 students put up their hands, some of the students didn't put up their hands but they called the teacher to attract her attention.
Lesson 7	Students participated well; most of the students give the answers while they were putting up their hands.
Lesson 8	Students participated well, half of the class put up their hands to answer. Many students gave the answers along with the volunteers.

### Participation during the discussion of answers

Similar to previous observation data, only lesson 2 was not well-participated by the students. For the personal interest category, the observations showed students were active during the lessons. This shows that web-based resources motivated students as they developed interest towards the texts and the practice activities.

Table 7. Observation on students' motivation to participate during the discussion of answers

Observation	Notes
Lesson 1	Good student participation, about 10 students put up their hands to give their feedback.
Lesson 2	Students were rather quiet; only 5 students tried to answer.
Lesson 3	Very good student participation, the volunteers gave feedback for the questions asked accordingly, while the rest answered together with the volunteers.
Lesson 4	Very good student participation, about 15 students put up their hands to join in the discussion.
Lesson 5	Good student participation, many students put up their hands to answer and some of them even asked the teacher to give them a chance.
Lesson 6	Good student participation, half of the class put up their hands to answer.
Lesson 7	Good student participation. After the volunteers gave their answers, about 10 students asked the teacher more questions and the discussion became longer.
Lesson 8	About 15 students volunteered to give feedback for the questions asked, students who have the different answers discuss their answers with the teacher.

### *General Achievement Goals*

#### Independent reading

In most of the lessons, it was observed that most of the students were doing independent reading without assistance from the teacher. This shows that they could perform independently by interacting with the web-based texts. The only lesson that required teacher's assistance was lesson 2.



Table 8. Observation on students' motivation in independent reading

Observation	Notes
Lesson 1	All of the students were interested while reading the text and links; they were very engrossed in reading.
Lesson 2	About 10 students asked for the teacher's help in reading the text; the rest of the students were busy talking to each other.
Lesson 3	All of the students read the text quietly, they looked very engrossed.
Lesson 4	Students were very excited; they were very engrossed reading the text and links.
Lesson 5	All the students read quietly without any assistance from the teachers.
Lesson 6	Most of the students browsed the text and links on their own.
Lesson 7	Half of the class read the text and links quietly without any assistance from the teacher.
Lesson 8	Most of the students were focused in reading the text and links, only 3-5 students were chatting while reading the text.

#### Finding meaning of unfamiliar words

Except for lesson 2, it was noted that students seemed to be very interested in exploring the online dictionaries on their own. Online dictionaries enabled them to search for the meaning of unfamiliar words without depending on teacher's assistance.

Table 9. Observation on students' motivation to find meanings of unfamiliar words

Observation	Notes
Lesson 1	Many of them had cheerful faces while using the online dictionaries to find the meaning of unfamiliar words.
Lesson 2	Half of the class asked the teacher questions about some unfamiliar words before they looked for them in the online dictionaries.
Lesson 3	Students were able to operate the online dictionaries well. All of them were quiet and were concentrating on their tasks.
Lesson 4	Most of them concentrated while using online dictionaries to look for the meaning. Only 4 students asked teachers questions.
Lesson 5	Most of the students browsed the online dictionaries for meanings on their own. Only 2-3 of them were talking to each other.
Lesson 6	All of the students tried to look for meanings using the online dictionaries on their own. About 5 of them jotted down the meaning of the words.
Lesson 7	All of the students browsed the online dictionaries on their own.
Lesson 8	All of the students looked cheerful while browsing the online dictionaries on their own.

### Completion of task

The data show that students were focused on the task and they managed to complete their work on time without help from the teacher. But there were negative responses to lesson 2. It was noted that students did not complete their tasks on time and some of them needed help from the teacher to complete the tasks. However, on the whole, the data show students were able to perform independently with the use of web-based resources in reading comprehension.

Table 10. Observation on students' motivation to complete the task

Observation	Notes
Lesson 1	All of the students tried to complete the questions on their own.
Lesson 2	Some students asked for the teacher's help to answer the questions. About 10 students did not complete their work.
Lesson 3	Around 20 students showed interest in answering on their own but all of them could not complete their work on time.
Lesson 4	All of the students browsed the text for answers on their own and they completed work on time.
Lesson 5	Half of the class completed their work on time without teacher's help.
Lesson 6	All of the students showed interest in completing work on their own and about 20 of them managed to complete work on time.
Lesson 7	More than 20 students completed work independently.
Lesson 8	Most of the students looked cheerful while browsing the online dictionaries on their own.

### ***Focus Group Interviews***

These interviews were conducted with fifteen students to develop a better understanding of their responses and perceptions towards web-based resources. Their responses towards web-based resources are investigated in detail by looking into their responses towards the use of web-based texts as a medium in reading comprehension, their responses towards the lessons and their responses towards the topics of web-based texts.

### ***Responses towards the use of web-based texts as a medium in reading comprehension***

The data in Table 11 clearly show that students prefer web-based resources to textbooks. Based on their reasons in Table 12, web-based resources created a positive attitude in

students. Web-based resources enabled them to explore the texts on their own by using the links and online dictionaries.

Table 11. Students' preference of reading material in reading comprehension

Focus Groups	No. of students	Comments
A	5	S1, S2, S4 and S5: prefer web-based resources. S3: hmm... prefer web-based resources.
B	5	S1 and S2: prefer web-based resources S3: web resources S4: hmm... prefer web-based resources S5: web-based resources
C	5	S1: I prefer web-based resources S2: of course I prefer web-based resources S3: prefer web resources S4: prefer web-based resources S5: hmm... web-based resources

Table 12. Students' reasons for preferring web-based resources to textbooks in reading comprehension

Focus Groups	No. of students	Reasons
A	5	<p>S1: web-based resources are interesting, can get more information about the topic and learn new words using online dictionaries.</p> <p>S2: it is enjoyable, attractive, can learn new things about the topic.</p> <p>S3: web-based resources are colourful, can learn new words.</p> <p>S4: hmm... web-based resources are fun, nice to read, nice colours.</p> <p>S5: it is interesting, colourful, can learn new words.</p>
B	5	<p>S1: web-based resources are interesting, I can learn a lot and attractive.</p> <p>S2: hmm... web-based resources are very attractive, interesting and colourful.</p> <p>S3: it is colourful, can learn new words.</p> <p>S4: it is interesting, I can use online dictionary to learn new words, can read more about the text.</p> <p>S5: hmm... it is nice, colourful.</p>
C	5	<p>S1: I can read to get more information about the topic</p> <p>S2: web-based resources are fun and very enjoyable to read.</p> <p>S3: hmm... web-based resources have attractive pictures and I can learn new words.</p> <p>S4: hmm... it is interesting and fun.</p> <p>S5: web-based resources are nice and interesting.</p>

### *Responses towards the lessons*

One of the questions asked during the interview was whether the students participated in all the activities during the lessons. Table 13 shows students' feedback.

Table 13. Students' feedback regarding participation in the lessons

Focus Groups	Students' Feedback
A	<p>S1: yes, I participated in all the activities</p> <p>S2: hmm... I participated in most of the activities</p> <p>S3: yes... hmm... I think so</p> <p>S4: yes of course</p> <p>S5: yes... hmm... I did</p>
B	<p>S1: yes of course</p> <p>S2: well... hmm... yes I participated</p> <p>S3: yes I participated in most of the lessons</p> <p>S4: yes I participated a lot</p> <p>S5: yes I participated</p>
C	<p>S1: yes... most of the activities</p> <p>S2: hmm... yes I participated</p> <p>S3: yes I participated a lot</p> <p>S4: yes of course</p> <p>S5: yes I participated</p>

The data show that majority of the students participated a lot in the activities during the lessons. Greater students' participation indicates that they were motivated and interested in the lessons as can be seen in Table 14.

Table 14. Students' feedback regarding their interest to complete the task

Focus Groups	Students' Feedback
A	<p>S1: yes I was interested because I had the chance to find the answers from the web-based text and also use online dictionary to understand the questions and difficult words</p> <p>S2: yes I was interested... hmm... because finding answer from web-based text was interesting</p> <p>S3: hmm... yes interested a lot... because it was fun to find answers from web-based text</p> <p>S4: yes I was interested because nice to find answers from the text given, can use online dictionary to understand questions</p> <p>S5: hmm... yes I was interested because it was interesting to find the answers</p>
B	<p>S1: yes I was interested because I browse the text to find answers</p> <p>S2: yes... I could use the online dictionary to understand the questions and this made me answer the questions easily</p> <p>S3: hmm... yes interested. It was really enjoyable to find answers from web-based text</p> <p>S4: hmm... I was interested because it was fun to find answers from the text given, browse the text to look for answers</p> <p>S5: yes I was interested because very interesting to find the answers from the text</p>
C	<p>S1: yes I was interested because I had the chance to browse the text for answers</p> <p>S2: hmm... yes I was interested because it was fun looking for answers by browsing the text and dictionary</p> <p>S3: Interested because I managed to understand the questions using online dictionaries</p> <p>S4: hmm... interested because it was really enjoyable referring to text and answering</p> <p>S5: hmm... yes I was interested because it was fun</p>

Students gave positive feedback regarding their interest to complete tasks in the lessons. Both the interview and observation data show students seem to enjoy completing the tasks given after reading web-based texts.

The extracts in Table 15 show that students agree that web-based resources have motivated them in reading comprehension. This supports the observation data which show that web-based resources motivated students.

Table 15. Students' motivation in reading comprehension lessons using web-based resources

Focus Groups	No. of students	Comments
A	5	S1: yes of course, it did motivate me a lot S2: yes, it motivated a lot S3: it motivated. S4: yes... hmm... motivated S5: hmm... yes... hmm... motivated
B	5	S1: yes, it did motivated S2: yes, it motivated S3: hmm... it motivated S4: hmm... yes motivated S5: yes it did
C	5	S1: of course it did S2: hmm... yes it motivated S3: hmm... it motivated me a lot S4: yes it motivated S5: yes it motivated

### *Responses towards the topics of web-based texts*

There were eight lessons carried out in the study. The researcher was interested to find out the topics that students were interested in.



Table 16. Students' topics of interest and reasons they like those topics

Focus	Topics of interest	Common Reasons
Groups		
A	Culture and traditions, Glorious food, Animals and us	Interesting, beautiful and colourful pictures, a lot of new information
B	Culture and traditions, Glorious food, Animals and us	Learnt new things, colourful pictures, topics were interesting
C	Culture and traditions, Glorious food, Animals and us	Passages were attractive, learnt new words, nice to read

The above reasons indicate that a web-based text that has the qualities mentioned by the students can motivate students. However, most of them did not like the topic on 'air pollution'. They found it difficult and boring. These are the reasons the students did not show a positive attitude towards the text and did not really take part in the activities carried out.

## Discussion

In relation to question 1, *Does the use of web-based resources motivate students in reading comprehension?*, the findings of the research show that the use of web-based resources motivates students in reading comprehension. This is because the data obtained from the observations show that students showed self-efficacy, personal interest as well as general achievement goals in reading the web-based texts and completing the tasks given. Generally, they were confident dealing with most of the selected web-based texts and the tasks. Thus, it is not surprising to see that the students managed to complete their work without any help from the teacher. Furthermore, they were motivated as they searched for the meaning of difficult words which they had encountered in the web-based texts via online dictionaries using their own initiative. In addition, students were asked whether web-based resources

motivated them in reading comprehension in the last question in focus group interviews. Although the web-based texts were selected by the researcher, all of them gave a similar answer in a straightforward manner: *yes*. This is similar to a study which was conducted by Kung and Chuo (2002) regarding students' attitudes towards learning English through websites. They found that students showed positive attitudes towards the use of teacher-selected websites in their English learning. However, a few considerations need to be taken into account for teacher-selected web-based texts. Reading web-based texts which are not suitable to students' English language proficiency or which are not relevant to students' life results in students' becoming demotivated when it comes to reading comprehension. It is always good to encourage students to read self-selected web-based texts. However, this is more applicable for home reading instead of classroom reading. It is easier for the teacher to instruct the lesson if all of the students read the same text. As long as the suitability and the relevance of the selected web-based texts are ensured, web-based resources motivates students in reading comprehension generally.

In relation to question 2, *What are the students' responses and perceptions to the use of web-based resources in reading comprehension?*, the findings show that students gave positive feedback towards the use of web-based resources as a medium in reading comprehension. There was good student participation based on the observation data. The observation data were supported by the interview data which show that students prefer web-based resources to textbooks in reading comprehension lessons. It is encouraging to know that students are interested in the use of web-based resources in reading comprehension. However, it is undeniable that textbooks are important to some extent. Thus, the use of web-based resources in reading comprehension is not meant to take the place of English textbooks. Since

interactive technology in the form of interconnected texts with links to definitions of words, background information and comprehension questions are useful to enhance different aspects of second language processing (Martinez, 1997), it can be used to provide an alternative for the English teachers in reading comprehension lessons.

On the other hand, the interview data reveal that students had positive responses towards most of the reading comprehension lessons which used web-based texts. They managed to complete their work on time and they enjoyed exploring the text and online dictionaries to answer the questions. They were interested to complete the tasks given independently as they liked to take control over their own learning. At the same time, it is clearly shown in the observation that they also enjoyed the discussion of answers. Most of them shared their feedback with the teacher when the discussions were going on. This is supported by Berge (2000), who highlights that a web-based teaching and learning environment is more about sharing among students rather than total control by teachers.

Regarding students' responses towards the topics of web-based texts, there were three topics that students enjoyed very much. They were *Animal and Us* (Elephant), *Glorious Food* (Malay Food in Malaysia) and *Culture and Tradition* (Lion Dance). Interesting texts, colourful and attractive pictures, new information about the topic were the main reasons these three topics were of interest to the students. On the contrary, the majority of the students did not like *Saving Our Environment* (Air Pollution) as they felt the text was difficult to understand and the content was not interesting. Obviously, students did not enjoy reading the particular web-based text once they found it difficult or not attractive even though they provided positive responses towards web-based resources overall. Therefore, genres and level

of difficulty of texts should be taken into consideration when choosing a text as it is very important in determining success of a reading comprehension lesson.

In a nutshell, this study revealed that seven out of the eight lessons using web-based resources were successful. In other words, the results of the study adequately show that the use of web-based resources in reading comprehension can motivate students. Hence, teachers should now be more confident to venture forth with web-based resources as a means of teaching reading comprehension.

### **Implications**

The study has pedagogical implications to the approach used to teach reading comprehension. Web-based resources can create a student-centred learning environment which is the type of learning environment advocated by our education system, and such an environment has a positive impact on students. The results show that students have positive attitudes towards the texts as most of them enjoyed exploring the text with the assistance of online dictionaries. It is suggested that teachers allow students to explore online dictionaries or other relevant links while they read web-based texts independently in order to encourage them to take control of their own learning as well as to create an interest towards the texts through self-exploration. While using web-based texts as a medium of teaching and learning, teachers should play the role as facilitators instead of instructors. However, teachers should be careful when selecting web-based texts. The difficulty of the texts should be appropriate to the target students and the content of the texts should be relevant to their lives as this study has shown that students were no longer interested in reading a web-based text once they found it difficult and not related to their life.

### **Recommendations for future studies**

Future studies could be conducted to investigate the effectiveness of using web-based resources to improve students' ability in reading comprehension by adopting more data collection methods such as pre-test and post-test. This can help us to see whether there is any improvement in students' performance in reading comprehension upon using web-based resources. Furthermore, considering that one of the texts used in this study failed to have a positive impact on some students, future studies should identify web-based resources which are more interesting and which are suitable to students' English language proficiency levels in order to have a greater impact on the students' language learning experience. Lastly, future studies pertaining web-based resources could also be carried out for the improvement of other language skills besides reading comprehension.

### **Conclusion**

The research results show that students are motivated by the use of web-based resources in reading comprehension, and hence, ESL teachers should make use of such resources in order to enhance the reading skills of the students and their enjoyment of reading in English.

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**APPENDIX 1**

<b>CATEGORIES/ITEMS</b>	<b>NOTES</b>
<b>Self-efficacy</b>	
1. Response towards the text shown	
2. Response towards the worksheet	
<b>Personal interest</b>	
3. Participation during shared reading	
4. Participation during question and answer session	
5. Participation during discussion of answers	
<b>General achievement goals</b>	
6. Independent reading	
7. Independent searching for meaning of unfamiliar words	
8. Completion of task	

**APPENDIX 2**

1. Do you prefer textbook or web-based resources for reading comprehension?
2. If you prefer web-based resources, please give your reasons.
3. Did you participate in all the activities during the lessons?
4. Were you interested to answer the reading comprehension questions given? If yes, please give your reasons.
5. Which topics did you like very much?
6. Why did you like those topics?
7. Were there any topics that you did not like? If yes, please give your reasons.
8. Do you think web-based resources have motivated you in reading comprehension?