

The Use of Schoology to Enhance Students' Reading Comprehension at Lakidende University

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ABSTRACT

This study aimed to find out (1) the extent to which schoology enhance students' reading comprehension (2) the students' perception toward learning through shoology (3) the advantages of shoology for teaching reading comprehension (4) the disadvantages of shoology for teaching reading comprehension. This study was a mixed method research design known as explanatory mixed method design (Quan-Qual model). There were two groups involved namely experimental and control group. The study was carried out at Lakidende University of Unaaha with 40 undergraduates as the sample. Data were collected by using reading test and students' self-diary. Moreover, the data were analyzed quantitatively and interpreted by using the software program of SPSS 16.0. the qualitative analysis was also conducted to analyze students' self-diary. This study found that schoology give a significant enhancement on students' reading comprehension from pre-test to post-test revealed the significant difference ($0.008 < 0.05$) before and after the implementation of schoology. Based on students' self-diary, it showed the students in experimental group gave positive responses toward schoology, the advantages of schoology for teaching reading comprehension were responsible, collaborative, ease of use and accessible while the disadvantages of schoology for teaching reading comprehension were the internet connection, time of the schoology and monotonous. This study concludes that schoology

enhance students reading comprehension.

1. INTRODUCTION

Nowadays, reading plays an important role in learning English as either second or foreign language. Reading exposes students to new vocabularies, syntax, and even new cultures. Those can be learnt through some supporting sources that can give the information and knowledge to the students such as dictionaries, textbooks, newspapers, magazines, journals, articles and others. Reading is not solely the process of comprehending the complex meaning of the text but also how to gain the knowledge from the sources mentioned above. Urquhart and Weir (in Hedgcock and Ferris 2009: p 15) stated that Reading deals with language messages in written or printed form by extracting the required information from it as efficiently as possible. Therefore, through reading students can interact with printed text to get information needed.

Fundamentally, Reading is important not only in developing language intuition and determining academic success, but also for completing certain task and building critical thinking. Therefore, it is obligatory for students, especially those who study in colleges to have good reading skills. They should acquire such an ability that they can easily handle any reference they need for accomplishing every task given to them. In addition, it is avoidable that they will deal with accomplishing writing academic paper which finally forced them to read various books and references. In short, it is crucial for the students to acquire reading skill.

In spite of the importance of reading in academic context, students often have difficulties in learning reading materials in the classroom. One of them is that they often get difficulty in comprehending long texts. Most students find it bored when they face such texts. Moreover, their boredom easily leads them either into lost motivation or low awareness. Kelly and Widin's (2001) study on *International Students' Experience of Academic Reading* found that many students face difficulties in reading. Here are some of students' words:

*"I read everything that I am supposed to but sometimes I am at a loss ... I can't read between the lines. I can read the words, though the language is a bit different to what I am used to, it isn't the terminology, it is the background knowledge and the references to other texts that I don't know. I experience this with most subjects.... I just don't know how to catch up with this knowledge.
I have to read all the time, all weekend. I did come here to study but I didn't know that I would have this much trouble with reading"*

Similarly, Eskey (2005) contend that despite the students have adequate language competency, to some extent they still find it difficult in comprehending academic texts thoroughly.

A new learning environment will be beneficial for the students' reading to comprehend the text; an interesting and fun learning can be created through interesting materials integrated with internet. Gear (2006) stated that young learners who struggle in reading comprehension may use the Internet to widen their opportunities to infer, connect, predict and ask questions. It is supposed to be the key in producing successful readers.

One of internet devices that can be employed as an alternative to traditional classrooms that could stimulate their reading comprehension is Schoology.

Schoology is a web based K-12 learning environment that will give students, parents, and teachers access to class materials and information via the internet. Schoology is free and allows for teacher to teacher, teacher to student, and even student to student online collaboration in a user friendly and secure environment. It offers the possibilities of adopting this collaboration and learning tool to customize learning for each student (Farmington Schoology, 2014).

The design of Schoology is parallel to that of Facebook in which conversations take place, messages are sent, statuses are updated and information and other media are shared within a classroom network. Schoology consists of two main contexts 1) interactive communication and 2) academic information exchange. Teachers can create discussion questions, collaborative groups, or boards for assignments that allow for dynamic interaction between students and their teachers. For example, students participating in reading workshop can ask questions and post comments about classmates' book choices. Teachers can participate in and monitor these student-led discussions. The second aspect that Schoology has capitalized on is the ability to deliver academic information to students. Within Schoology, students are able to access their grades, attendance records, and teacher feedback on electronically-submitted assignments. Access to this information increases communication between teachers and students and holds students accountable for their academic responsibilities (Manning. *et. al*, 2011).

In addition, schoology offers much more than just the Facebook factor. It is a robust learning management system with apps available for iPad, iPhone, Android, and Kindle mobile devices. Students find that submitting assignments, taking tests, making comments, and asking questions is smooth and intuitive for them, and they retain access to resources in their courses after the semester ends (Wall, 2014).

Overall, the design of Schoology encourages voluntary submission of the learners to the activities being done in and out of the classroom. Instead of relying too much in the old methods of teaching and learning, incorporating teaching in this digital age may help the students to be more involved in their studies.

While Several studies on learning management system has been employed, the strategy of using schoology is still largely unexplored and most of the studies that have been conducted the others Learning management system such as Edmodo and Rosetta stone. Therefore, the research into the use of schoology for enhancing language skill is still limited as reported below.

For instance, while some studies suggest that, in terms of The Effect of Rosetta Stone Computer Software on Vocabulary Learning of Iranian Elementary EFL Learners the results of the study indicated that the CAVI groups performed better on post-tests when compared to the Teacher-led Instruction groups Sharifia, et al (2014). Similary Pham Cong Thien, Et al (2013) report that Applying Edmodo to Serve an Online Distance Learning System for Undergraduate Students in Nong Lam University, Vietnam shows a good level of satisfaction and level of interest among the students. The explanation from finding showed that using learning management system strategy for second and third language learners of English can enhance

students' skill in each context. However, the studied only focused on the terms of Edmodo and Rosetta stone.

Following from the these finding, the researchers investigated whether the use of schoology would reveal students' critical thinking ability in the target language as well as discover if the strategy had any impact on their motivation to use English. To apply schoology in their reading activity; the readers should make prediction before reading, think about the time to accomplish their reading task, re-read confusing parts, answer the question posted, and comment on each other's postings. While to examine students' perception toward schoology and the advantages and disadvantages of schoology on students' reading comprehension, then the researcher assigned students to write their responses in the form of self-diary. It is supposed to see the potential changes of their perception toward schoology. Oxford (1990) states that diaries or journals are forms of self-report which allow learners to record their thoughts, feelings, achievements, and problems, as well as their impression of teachers, and their classmates. Most of diaries tend to subjective and it is helpful to provide guidelines for the teacher in their classroom teaching. Besides, students can be asked to use their diaries to focus specifically on language learning strategies.

Specifically, this research sought answers to the following questions:

1. To what extent does schoology enhance students' reading comprehension?
2. What are the students' perception towards learning through schoology?
3. What are the advantages of schoology for teaching reading comprehension?
4. What are the disadvantages of schoology for teaching reading comprehension?

2. LITERATURE REVIEW

In reading activity, the primary goal of the readers is that to promote their understanding to get the information from what they have read. Without comprehending the texts it will impossible for the readers to learn even remember the texts. Roe, Stood, & Burns (1978) state that it is impossible for the readers to learn even remember the texts that they have read except they understand the texts. Thus, reading comprehension refers to the ability to understand the texts that the students read and what the writers try to convey to them.

Moreover, Redway (1992) explains that reading comprehension is a process in grasping idea, evaluate their contents, and connect them to other ideas in written language. In other words, the readers are supposed to have a good skill in reading in order they can analyze the content of the text. Also, readers are supposed to have background knowledge of the text in order they can connect it to other reading activities. Nunan (1999) claims that good readers are able to relate the text and their own background knowledge efficiently. Therefore, to be a good readers, reading continually are required in expanding reader's background knowledge.

In addition, Roe, et al. (1978) describe that reading comprehension is an abstract process that occurs in brain, it is difficulty to observe, to measure, and to teach directly. Students can discuss reading content answer question, and verbalize how they arrive at answers, but the actual mental process can not be observed. A good way to explore the process of reading comprehension is to discuss reading

with the readers who share their thought as they read. In other words, sharing with other readers can be the best way in getting a better comprehension about the text.

Roe, et.al (1978) divide reading comprehension in four levels, they are literal, interpretive, and evaluative (critical), and creative comprehension. Related to the main focus of this study, the researcher focus on the literal, interpretive, and critical comprehension.

One of the learning theories underlie in this research is the social constructivism theory promoted by Lev Vygotsky. In his theory "social constructivism", Vygotsky (1978) posits that learning and development is a collaborative activity and that children are cognitively developed in the context of socialization and education. For learning to occur, the child first makes contact with the social environment. Based on the theory above, we can see the learners can develop their cognitive aspect if they are interacting with another learner. Vygotsky constructivism is widely known as a social constructivism because the effect off culture and social context for learning process. In Vygotsky's theory, all learners have a zone of proximal development.

"..... the distance between the actual development as determined by the independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with more peers (Vygotsky: 1978)"

[cited in Fountain magazine; Ozer O., (2004)].

He also mentions the cognitive development were limited to a certain range of learners' age. However, with the help of social interaction. such as an assistance from a mentor and also a correction from the peer, students will be able to figure the concept and scheme.

The use of Vygotsky's theory in the classroom arc emphasized on the social interaction with more knowledgeable others to move development forward (Blake, Bs. & Pope. T., 2008 in Asherott, 2008). That's why a more capable person, such as teachers or peers, who provides assistance to the students; is required in the classroom in order that students be able to complete the task with their assistance, However, besides getting assistance from a more capable person, such as teachers or peers, who are in their Zone of proximal Development still need an active teaching. Therefore, Vygotsky's promotes the belief "what is learned must be taught" (Wilhelm, 2001). Teachers will be explaining, modeling, and using guided practice in the classroom. Modeling and explaining can help students to know what they have to do. The Vygotskian classroom is expected to discover through teacher-student and student-student interaction. Some of the cognitive strategies that group members bring into the classroom are questioning, predicting, summarizing, and clarifying. As cited in Ozer O. (2004);

In a Vygotskian classroom, dynamic support and considerate guidance are provided based on the learner's needs, but no will or force is dictated. Students are exposed to discussions, research collaborations. electronic information resources. and project groups that work on problem analysis.

Because the social constructivism theory primarily aims at developing learners' cognitive through interacting and collaborating with others, then a classroom with a high intensity of discussion and collaborated project is one of the characteristic Vygotskian classroom.

Therefore, Vygotskian class is not only applicable in a traditional classroom, but also in the virtual classroom. Furthermore, Vrasidas (2000) states "In a constructivist course, the learners have a lot of control over their own learning and are given the opportunity to negotiate content, assignment, procedures, and deadlines.

3. METHODS

This research applied explanatory mixed method design, also known as the QUAN-Qual model (Gay, *et al* 2006). Quantitative data are collected first and more heavily weighted than qualitative data. There were two phases of analyzing the data in this study. First, the researcher formulated two hypotheses, collected quantitative data and conducted quantitative analysis. Second, the qualitative analysis and its interpretation were used to elaborate the quantitative results and to explain the result of self-diary (Gay. *et al*, 2006).

To elicit the quantitative and qualitative data for this study. The researcher firstly collected quantitative data by applying quasi-experimental research design. Moreover, there were two groups have been involved; experimental and control group. The experimental group received treatment that was using schoology and the control group has been taught using conventional way that was top-down processing. To assess students' prior reading comprehension performance, the researcher conducted pre-test. Then, post-test was carried out to examine the use of schoology to enhance students' reading comprehension.

After gaining the quantitative data, the researcher conducted qualitative analysis to analyze students' self-diary result which were used to find out students' perception toward schoology.

3.1 Procedure of Data Collection

3.1.1 Pre-test

The pre-test which was conducted to both experimental and control group is carried out to find out students' prior knowledge in reading comprehension performance before receiving treatment.

3.1.2 The Treatment

Following the pre-test, the students in experimental and control group received difference treatment. The schoology has been implemented to the experimental class. Whereas in control class has been taught using conventional way. The researcher chose three stapes strategy to be applied in control class because this technique is commonly used by the lecturer in Lakidende University, especially in teaching reading. The researcher conducted the presentation of material five times.

3.1.3 Post Test

Next, the post-test was given to the students after receiving four meetings of treatment. Then, the result of pre-test and post-test both of two different groups:

experimental and control group were compared to examine whether there was significant enhancement on students' reading performance.

3.1.4 Students' Diary

Students' diary section was carried out to find out students' perception when they used of schoology in reading. A better understanding of students' perception will be lead to the possibility of more effective teaching strategy.

3.2 Technique of Analyzing Data

In the first phase, the quantitative data were calculated using SPSS version 16, especially descriptive and inferential statistics. Descriptive statistics which include the percentage of students' score, mean score, the SD of the data and inferential statistics are meant to compare the students' result in experimental and control group. The second phase was focused on qualitative analysis which is supposed to analyze students' self-diary.

4. FINDINGS AND DISCUSSION

4.1. Findings

4.1.1 The extent to which schoology enhance students' reading comprehension performance

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Gain Score	Equal variances assumed	.164	.687	2.804	38	.008	.24950	.08900	.06934	.42966
	Equal variances not assumed			2.804	35.640	.008	.24950	.08900	.06895	.43005

Table above shows that statistical analysis of *independent Sample t-test* has been conducted to compare result for experiment and control class in their reading comprehension. The result shows that schoology has a noteworthy impact on students' reading comprehension. The probability value (p_{value}) is less than the level of significant which p_{value} is $0.008 < 0.05$ (alpha value). Means, there is difference mean score on experimental and control class.

4.1.2 Students' perception toward schoology

Students' Self-diary Entry

Table 4.21. Frequency of students' perception toward the treatment

Group	Feedback	Positive	Negative	Total
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Exp	Entry 1	15	5	20
Exp	Entry 2	20	0	20

As shown in the above table 4.21, there were two types of responses; positive and negative. For 15 students, they reported positive responses and the rest gave negative responses in the entry 1. While in the entry 2 The result shows that five students changed their perception from negative to positive.

4.1.3 The advantages of schoology

Based on the students' Self diary, we could see that mostly the participants thought that the usage of schoology in their reading comprehension class as a positive input. The result of students answered showed how schoology give the advantages toward the students in their learning process. The following section describes the major advantages of using the blogging activity as a supportive tool in reading course.

1. Responsible

The participants found the schoology activity make them responsible in their learning process. One participant commented:

Schoology makes me responsible. Since all the materials are uploaded already. It is own awareness that left behind. The worst case if we do not do the assignments is that we might not get our score.

Based on the statement, it could be concluded that the use of technology could help students to become more responsible in their learning process (Chen, Lou, Lou, 2001). Since schoology had already given the material and time needed by the students, the thing left for the students was elaborating on the already existing facilities. Therefore, as the students mentioned about being responsible, they were given the freedom to choose whether they would develop the learning material or not as the students had already known the advantages and disadvantages of their own action. Thus, it could be said that schoology actually give freedom and motivation to the students to learn.

2. Collaborative

The participants found the schoology activity to be a collaborative platform for effective communication with the instructor and other participants in the class. One participant commented:

We also use schoology as a media to get in touch with our lecturer and friends... it is like posting in the facebook wall of the teacher.

Vygotsky (1978) posits that learning and development is a collaborative activity and that children are cognitively developed in the context of socialization and education. Therefore, the usage of schoology actually gave lots of opportunity for students to communicate and choose their own time and to get in touch with their peer and lecturer. It helped them in getting in touch with one and another. Some other opinions were also stated in the students' diary:

3. Ease of use

The participants found the schoology to be an easy and effective tool for learning. One participant noted:

"it is easy to use and very useful. I don't have any complain about schoology."

Based on the statement, it could be concluded that how easy or flexible the use of schoology for students in their learning process.

4. Accessible

Anytime and anywhere accessibility was one of the most common advantages of the schoology that most of the participants reported. They found the schoology accessible through their computers, laptops, iPods, and iPhones on a basis. One participant mentioned:

"One of the advantages of the schoology was the ability to check what you need to do anytime anywhere."

Another participant elaborated on her similar experience:

As long as there is laptop or any other gadget and internet connection, we can access the schoology and do our homework.

4.1.4 the disadvantages of schoology

Most of the participants did not find any disadvantage of the schoology activity as a supportive tool in a reading course. However, some participants found and reported some minor problems of using schoology as a supportive tool in a reading course.

The following section describes the major disadvantages/problems of using schoology as a supportive tool in reading course. The presentation includes representative excerpts from the responses.

1. Time Consuming

The participants found the schoology activity took a lot of their time. One participant commented:

"it takes a lot of time to write a comment on the schoology".

The statement above is closely related to schoology being time consuming. the students believed that writing a comment on the schoology took a lot of time. At this point, it is important to consider all the assignments that students are supposed to do and allocate them sensibly so that they do not have a lot of work that addresses the same topic.

2. Monotonous

A few participants did not like the insulated nature of the schoology activity as they considered it to be a monotonous activity. One participant noted:

"I got bored with commenting on something all the time".

An effective solution to this problem can be making the class schoology as interesting and attractive by choosing topics that can address students' interests and equipping the class schoology with pictures, links and videos that might be of interest to students.

3. Difficulty of accessing the Internet

The participants reported that they encountered some technical problems with the website where they created the class schoology, but that such problems occurred rarely. In addition, they stated that sometimes the lack of internet access or the slowness of the internet caused some trouble for them. One participant noted:

"I did not have access to an internet connection, I lost my access to the schoology and I couldn't meet the course requirements".

Making infrastructure for wireless internet connection better is the effective solution to solve this problem.

4.2. Discussion

The finding of pretest of two different groups were reportedly in the same level, they were mainly categorized as poor users and it was an evident that students still had difficulties in reading skill. Furthermore, the result of post-test revealed that the students' mean score of experimental group in which schoology has been implemented increased from 58.1 to 79.5.

This findings which indicated that schoology considerably improved students' reading comprehension performance confirm some previous studies related to LMS such as the Effect of Rosetta Stone Computer Software on Vocabulary Learning Sharifia,*et al.* (2014) found the CAVL (Computer Assisted Vocabulary Learning) groups performed better on post-tests when compared to the Teacher-led Instruction groups. Therefore, treatment proved to have a significant impact on vocabulary learning of the learners. This current research also does fit with Hastomo (2016) who found Edmodo is more effective than Picture Series to teach writing.

The result of this study revealed that the development of students' reading comprehension associated with the total of students' reading comprehension employment in schoology. This was indicated by the descriptive analysis of students' reading comprehension employment in schoology which was correlate with the improvement of reading comprehension. The students with higher reading comprehension employment based on Depdiknas was identified getting higher reading score. Conversely, students with lowest reading comprehension employment were found getting the lowest reading score. In sum, it was proven that reading comprehension by using schoology was effectively enhancing students' reading comprehension.

The result of self-diary pointed out that students seemed to support schoology in their reading comprehension. It can be identified from students' self-diary, this study found that students found the usefulness of applying schoology in their effort to be better in understanding the reading texts.

Students also argued that by applying schoology their comprehension improved. Students realized the usefulness of schoology and it was identified based on their answer in question number 1 that was "what do you think about schoology on your reading comprehension?" For this question, all students stated that schoology is very useful to be applied, since it improved their reading comprehension. They found that it was as a new way for them to achieve better performance in reading. As one of them said that before she applied reading through schoology she was difficult to understand the text. This phenomenon also showed that strategy style based instruction was one language strategy training model which was applicable in teaching schoology to students. The results clearly described that students had positive perception toward schoology.

From the result of students' self-diary, it could be seen that schoology offers range of advantages for students in order to improve their reading comprehension. It started from the material that were provided up to the flexibility that schoology offers for the students. Taking into accounts is that schoology also able to assist students' learning differences in a sense that the range of task or assignment given through schoology, was able to help decreasing students' gap in learning style. Communication between student-lecture and student-student is being assisted too (Sarrab, *et. al*, 2015) by using schoology.

Some disadvantages of schoology were agreed upon by students in the first and second entry of the self-diary. Moreover, teachers brought up a number of the disadvantages during the open-ended question which were consistent with the students' answers. The result of students' self-diary enabled the researcher to answer the *Research Question 4*. overall summary of the disadvantages stated by students as the answer of the *Research Question such as* : Difficulty of accessing the Internet, Difficulty in checking the class schoology all the time, Time consuming and Monotonous

5. CONCLUSION AND RECOMMENDATIONS

The outcomes of this study lead to the conclusions and suggestions. The conclusions are drawn based on the findings of this research, whereas suggestions are presented based on the conclusion of this study. The suggestions are supposed to the improvement of teaching and learning especially reading skills and also for further research.

5.1. Conclusion

Based from the findings of the researcher, the following conclusions were drawn:

1. Schoology has a significant effect toward the students' reading compression of second year of Lakidende University. It is caused by the application of this technique that gives students opportunity to think and work systematically in reading process. The students' reading scores of the post-test is higher than scores in pretest (the mean score of students' post-test is 79.5 while pre test is

58.1) for the result of t_{test} analysis shows that the t_{test} is 2.804 and a t_{value} is less than level of significance value in which t_{value} is $0.008 < 0.05$ (alpha value). Therefore, this result confirms that the hypothesis of this research is accepted. It means that there is a significant effect of schoology toward the students reading comprehension at Lakidende University.

2. Self-diary instrument was used to find out students' perception showed that students mainly gave positive response on schoology. The positive response can also be identified from the interaction between the lecturers and the students in the schoology class. The students are found more excited and enthusiastic. From the students' self-diary, most of the students said they found schoology is important to be applied because they were better in understanding the texts.
3. The results of the self-diary showed that schoology made many positive contributions to reading classes and also the learning and teaching process. They helped students to improve sub-skills in reading, writing, and research. Furthermore, the major advantages of the schoology that mentioned by students are responsible, collaborative, ease of use and accessible.
4. In addition to the schoology' various benefits, some disadvantages were mentioned by students. These challenges are about the internet connection, time of the schoology and monotonous.

5.2. Recommendations

The findings of this study revealed that schoology gave positive effect on students' reading comprehension performance. However, some limitations occurred, so the findings were still far from conclusive. Further studies on LMS schoology need to consider the limitations of this current research.

1. The teachers should attempt to apply blended learning (not pure online method) in the teaching of Reading comprehension as other topics in Communication Skills to further enhance the proficiency of the learners in communication particularly in reading.
2. For further research in the digital 21st-century classroom that there should be a study on other new technology to be used among English teachers and students.
3. For further research focusing on the others skill namely writing, listening, and speaking are necessarily to be conducted

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