

# ENHANCING THE STUDENTS' READING ABILITY THROUGH ICT-BASED READING MATERIALS

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## ABSTRAK

Penelitian ini bertujuan untuk meningkatkan kemampuan membaca (baik membaca pemahaman maupun membaca nyaring) siswa SMP Kelas VIII A di SMPN 1 Kubutambahan melalui materi bacaan berbasis TIK. Penelitian ini tergolong Penelitian Tindakan Kelas (PTK). Penelitian ini menggunakan model siklus Penelitian Tindakan dari Kemmis & Taggart (1988) dan dilaksanakan dalam dua siklus. Setiap siklus terdiri atas perencanaan, implementasi, observasi dan refleksi. Data dikumpulkan melalui observasi, angket, wawancara dan tes membaca serta dianalisis secara kualitatif dan kuantitatif. Hasil penelitian ini menunjukkan bahwa materi bacaan berbasis TIK bisa meningkatkan kemampuan membaca siswa secara signifikan baik kemampuan membaca pemahaman maupun kemampuan membaca nyaring.

Kata kunci: kemampuan membaca, materi bacaan berbasis TIK.

## INTRODUCTION

Reading is a complex process that involves both perception and thought. It consists of two related processes: word recognition which refers to the process of perceiving how written symbols correspond to spoken language and comprehension which refers to the process of making sense of words, sentences and connected texts (Pang et al., 2003). In the English Curriculum (School-Based Curriculum) of Junior High Schools, it is stated that the basic reading competency includes both reading comprehension and reading aloud.

Both reading comprehension and reading aloud have become problems among grade-eight students at SMPN 1 Kubutambahan. From the initial observation and interview, the grade-eight students' ability on reading comprehension and reading aloud was very low. From the result of the sub-summative test, the mean score of the students' reading ability was 5.25. It was much

below the minimum standard mastery stated in the curriculum. This was a very serious problem.

The factor assumed to cause such deficiency is the reading materials used. The teachers there only used the textbook which was officially recommended. The textbook was merely crammed with reading texts followed by series of comprehension questions and there was no sufficient guidance for reading aloud. The reading materials were not attractive, not appealing and difficult for the students. Consequently, the students lost confidence and put off reading. In this case, Harmer (2010) states that students' incompetency in reading is also caused by inappropriate reading materials. The students will put off reading if the reading materials are too difficult for them.

Moreover, the teachers at SMPN 1 Kubutambahan did not integrate ICT in designing and implementing their reading instructions even though there was possibility to do so. They do not realize that the integration of ICT will enable

them to design and to implement their reading instructions with variations. Even, as confirmed by Dudeney & Hockly (2007), when there is no sufficient ICT facility at school, for example there is only one computer in the school, teachers can develop offline ICT-based reading materials. They need to use Internet mainly as a resource, accessing the Internet to download and print out materials to use offline with classes or to create their own electronic materials printed out for learners.

Considering all these, this study was conducted in order to enhance the grade-eight students' reading ability at SMPN 1 Kubutambahan through ICT-based reading materials. The integration of ICT was taken into account because it enabled the teachers to get various resources and make variations on their instructional design and its implementation in the classroom.

There were two main research questions formulated in this study: (1) how could ICT-based reading materials enhance the grade-eight students' ability on reading comprehension? and (2) how could ICT-based reading materials enhance the grade-eight students' ability on reading aloud?

Reading is the process of constructing meaning from text, whether written or graphic, paper-based or digital (Winch et al., 2006: 3). Concerning the reading process, there is widely known three models of reading process: top-down, bottom-up and interactive model (Sibertain in Cahyono & Widiati, 2011: 51). The distinction is based on the way learners attempt to understand what they read. In bottom-up processing, readers start with the components parts: words, grammar, and the like. In top-down processing, however, readers start from their background knowledge, either content schemata or textual schemata. Brown (2001: 299) states that more recent research on teaching reading has shown that a combination of top-down and bottom-up processing (which is called interactive reading) is almost always as a primary ingredient in successful teaching methodology.

The text, the reader, and the interaction of

the text and the reader, which make up three reading models, give insights on how reading should be taught. They are 1) text structure theory which signifies the importance of the text in facilitating reading, 2) schema theory which emphasizes the role of the reader's prior-knowledge in understanding messages in a reading text, and 3) metacognitive theory that focuses on the interaction of the reader and the text (Cahyono & Widiati, 2011: 520)

Types of classroom reading performance can be categorized into oral reading or reading aloud and silent reading or reading comprehension (Brown, 2001: 312). Oral reading, at the beginning and intermediate levels, can serve as an evaluative check on bottom-up processing skills, serve as pronunciation check, and serve to add some extra student participation in order to highlight a certain short segment of a reading passage. Silent reading includes intensive reading (which covers linguistic and content) and extensive reading (reading for pleasure).

Harmer (2010: 101-102) proposes six principles in teaching reading, they are encouraging students to read as often and as much as possible, engaging the students with what they are reading, encouraging students to respond to the content of a text (and explore their feeling about it), predicting as a major factor in reading, matching the task with the topic when using intensive reading texts, and exploiting reading text to the whole.

In the English Curriculum, it is stated clearly that reading competency is ability to understand meanings and rhetorical steps of written texts which covers identifying general information, main idea, specific information, and meaning of word/phrase/sentence in the texts; identifying generic structure; and reading the texts aloud with appropriate pronunciation, stress and intonation (Curriculum 2004, p.37-38).

In this study, reading ability is the ability to derive meanings from written texts which includes (1) reading comprehension with the indicators of identifying general information; iden-

tifying specific information; deducing meaning from the context (word meaning, reference, inference); and reading aloud with appropriate pronunciation, stress and intonation.

Materials, in this case 'language-learning materials', refer to anything which is used by teachers or learners to facilitate the learning of a language. Materials could be cassettes, videos, CD-ROMs, dictionaries, grammar books, readers, workbooks or photocopied exercises (Tomlinson, 2007: 2)

Dit.PSMA (2010) states that instructional materials should be relevant with the curriculum requirement and adequate to achieve the competencies. Tomlinson (2007), on the basis of Second Language Acquisition theories/principles, proposes that language learning materials should achieve impact through novelty, variety, attractive presentation, appealing content and achievable challenge; help learners feel at ease; help learners develop confidence; facilitate learners' self-investment; and expose learners to language in authentic use.

ICT-based Materials refer to instructional materials which are related to technology as tools used to obtain, process and store data in various ways in order to produce qualified information (Dit.PSMA, 2010: 27).

Dudeney & Hockly (2007) explain that using ICT-based activities does not mean that completely new materials need to be prepared for every class. The Internet has a wealth of ready-made materials available. Teachers simply need to know how to find them. Moreover, they confirm that if teachers do not have much experience of ICT, it is suggested to start with simple tools and projects in class or to use ready-made materials for language learners. If ICT facility is not sufficient at school, for example there is only one computer in the school, teachers need to use Internet mainly as a resource, accessing the Internet to download and print out materials to use offline with classes. By creating and using their own electronic materials in class, teachers will be able to provide extra practice for learners. These kinds

of materials can provide a change of pace and can be highly motivating.

ICT-based reading materials, in this study, refers to offline audio-visual reading materials designed by means of computer which meet the curriculum requirement and SLA principles.

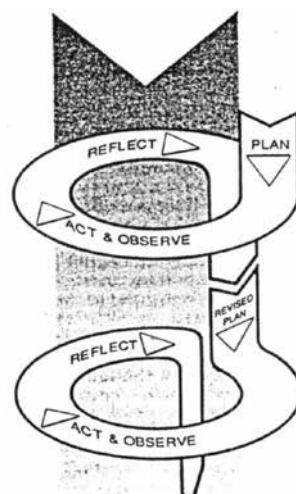
## METHOD

There are four moments (fundamental aspects) of action research: (1) to develop a plan of critically informed action to improve what is already happening, (2) to act to implement the plan, (3) to observe the effects of the critically informed action in the context in which it occurs, and (4) to reflect on these effects as a basis for further planning, subsequent critically informed action and so on, through a succession of cycles (Kemmis & Taggart, 1988; Mills, 2011)

This action research was conducted at SMPN 1 Kubutambahan (Class VIIIA) in the academic year 2012/2013. There were 30 students consisted of 4 males and 26 females.

This study uses Kemmis & McTaggart's (1988) Action Research Model. It is a cyclic process of planning, acting, observing and reflection. It can be shown in the following figure:

Figure 1. The Action Research Spiral (Kemmis & Taggart, 1988:11)



### 1) Planning

The researcher developed a plan of criti-

cally informed action to improve what was already happening.

## 2) Actions/Implementation

In this stage, the teacher (investigator) conducted/implemented the planned actions in the classroom:

- a) The students were given Pre-Test and their scores were recorded and analyzed.
- b) They were taught using the planned actions; that is implementing ICT-based reading materials.
- c) All the data needed were recorded during the implementations of the planned actions.

## 3) Observation

Observation has function of documenting the effects of critically informed action—it looks forward, providing the basis for reflection now, but more so in the immediate future as the present cycle runs its course (Kemmis & McTaggart, 1988: 13). Observation was directly done during the teaching learning process. All the data needed were recorded in the observation sheet/notes.

## 4) Reflection

Reflection recalls action as it has been recorded in observation. It has an evaluative aspect—it asks action researchers to weigh their experiences, to judge whether effects were desirable, and suggest ways of proceeding. In this stage, the teacher analyzes all the data obtained and reflects them to the class situation as a result of the planned actions.

This study was conducted in two cycles, and in each cycle was followed by reflection and reconnaissance. The reflection was always related to the thematic concern and theoretical framework as well as the teacher's own experience.

## FINDINGS AND DISCUSSION

Firstly, the Pre-Test was conducted and the students' scores were recorded and analysed.

Then, the planned actions were implemented in ten meetings.

The ICT-based reading materials for grade-eight students consist of 5 units. Each unit lasted in two meetings. Each meeting lasted 80 minutes (2 periods). The first meeting was for main classroom activities. Then, the students were assigned to do the home assignment and self-assessment at home. The second meeting was for discussing the students' home assignment and checking their self-assessment. Afterwards, the students completed the quiz and the questionnaire. Post-Test I was conducted after the sixth meeting and Post-Test II was conducted at the final meeting.

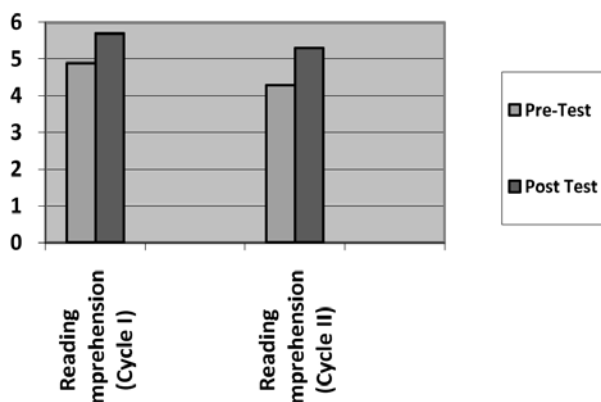
	NO	MATERIALS	MEETING
Cycle I	1	Pre-Test I and II	I
	2	Lesson Plan 1	II & III
	3	Lesson Plan 2	IV & V
	4	Lesson Plan 3	VI & VII
	5	Post-Test I	VIII
Cycle II	6	Lesson Plan 4	IX & X
	7	Lesson Plan 5	XI & XII
	8	Post-Test II	XIII

Table 1. The schedule of Action Research.

The results of Pre- & Post-Test I and II were shown in tables and graphs below.

Reading Comprehension	Pre-Test I	Post-Test I	Pre-Test II	Post-Test II
Total Score	146.4	170	138.2	204.3
Mean	4.9	5.7	4.3	5.3
Gain Score		0.8		1.0

Table 2. The mean scores of the students' ability on reading comprehension in the Pre- & Post-Test I and II



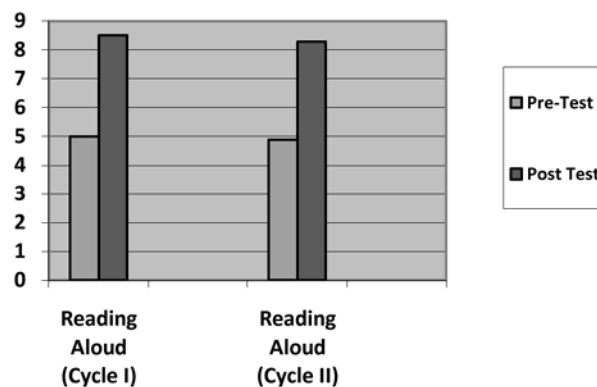
Graph 1. The mean scores of the students' ability on reading comprehension in the Pre- & Post-Test I and II.

In the first cycle, the mean scores of the students' ability on reading comprehension in the Post-Test I was higher than that on the Pre-Test I. The gain score was 0.8. This also happened on the Post-Test II in the second cycle. The gain score was 1.0.

Based on student's t-test analysis, it was revealed that the t-calculated was 3.498 (for the difference between the means of Pre- & Post-Test I) and 5.680 (for the difference between the means of Pre- & Post-Test II) while t-critical value was 2.045 at the .05 level of significance and 2.756 at the .01 level of significance. It means that there were very significant improvements of the students' ability on reading comprehension both in the first cycle and in the second cycle.

Table 3. The mean scores of the students' ability on reading aloud in the Pre- & Post-Test I and II

Reading Aloud	Pre-Test I	Post-Test I	Pre-Test II	Post-Test II
Total Score	150	254	148	248.5
Mean	5.0	8.5	4.9	8.3
Gain Score		3.5		3.4



Graph 2. The mean scores of the students' ability on reading aloud in the Pre- & Post-Test I and II.

In the first cycle, the mean scores of the students' ability on reading aloud in the Post-Test I was higher than that on the Pre-Test I. The gain score was 3.5. This also happened on the Post-Test II in the second cycle. The gain score was 3.4.

From the student's t-test analysis, it was revealed that the t-calculated was 19.165 (for the difference between the means of Pre- & Post-Test I) and 24.270 (for the difference between the means of Pre- & Post-Test II) while t-critical value was 2.045 at the .05 level of significance and 2.756 at the .01 level of significance. It means that there were very significant improvements of the students' ability on reading aloud both in the first cycle and in the second cycle.

The result of the questionnaires revealed that all students realized that the ICT-based reading materials are relevant and adequate to achieve the reading competencies; achieving impact through novelty, variety, attractive presentation, appealing content, and achievable challenge; helping them feel at ease and develop confidence; facilitating their self-investment; and exposing them to language in authentic use.

Based on the interview after the second cycle, the students said that they liked learning using ICT-based reading materials. They explained

that the reading materials were very interesting and much easier to understand than those on the previous books used. Moreover, they got much improvement on their reading abilities after studying using this sort of materials.

## CONCLUSION

ICT-based reading materials have a very important role in teaching reading. ICT facilitates the teachers to get various resources and make variations on their instructional design and its implementation in the classroom. Even though there was no sufficient ICT facility at school, teachers could develop offline ICT-based reading materials in which they needed to use Internet mainly as a resource, accessing the Internet to download and print out materials to use offline with classes or created their own electronic reading materials printed out for learners.

The findings of this study revealed that (1) the ICT-based reading materials could improve the grade- eight students' ability on reading comprehension significantly and (2) they could also improve the students' ability on reading aloud significantly. The significant improvements of the students' reading abilities occurred both in the first and in the second cycle.

Considering that this kind of reading materials was able to improve the students' reading abilities significantly, the EFL teachers are encouraged to develop the same sort of materials. It will bring a change and improvement on their professionalism as well as their students' proficiency.

Classroom Action Research is situational/context-based. Therefore, it is suggested that whoever (classroom teachers or other researchers) interested in this study to conduct further investigation.

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