DEVELOPING ICT-BASED READING MATERIALS FOR GRADE-EIGHT STUDENTS OF JUNIOR HIGH SCHOOL

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Abstract

This study was aimed at developing ICT-based reading materials for grade-eight students of Junior High School at SMPN 1 Kubutambahan which met the criteria of good reading materials and investigating whether the ICT-based reading materials were able to improve the students' reading competency. It was conducted through seven steps: need analysis, product design, design evaluation, design revision, field test (CAR), product revision and prototype product. The data were collected using questionnaires and reading tests. The data obtained were analyzed qualitatively and quantitatively. Based on the findings of this study, it was concluded that (1) the ICT-based reading materials could be developed through need analysis, then designing the product, evaluating the product design by experts, revising the product design, field-testing the product (through CAR), re-revising the product and finally producing the prototype product; (2) the ICT-based reading materials were able to improve the students’ reading competency significantly.

Keywords: ICT, material development, and reading materials.

INTRODUCTION

In the history of English instruction in Secondary Schools in Indonesia, reading ability was considered very important. Prior to the English Curriculum 2004 the objective of teaching English was developing communicative ability embracing four language skills with the first priority on reading skill. In the ‘Kurikulum 2004’ (Curriculum 2004 or Competency-Based Curriculum [CBC]) and School-Based Curriculum (SBC), the four language skills or competencies (listening, speaking, reading and writing) have equal position. However, special consideration is still given to the reading competency as the competency which is assessed in the ‘Ujian Nasional’ (National Assessment). The teaching of reading should be based on the curriculum (Dit.PSMA, 2010). The curriculum serves as the basis on which the teachers design their reading instructions. Moreover, the teaching of reading will be enhanced through the incorporation of Information and Communication Technology (ICT) (Winch et
ICT facilitates the teachers to get various resources and make variations on their instructional design and its implementation in the classroom.

In the English Curriculum (CBC and SBC), it is stated that the competency standard of grade-eight students of Junior High School is to communicate orally or in writing with appropriate register fluently and accurately in interactional and monologue texts especially in the form of descriptive, recount and narrative. The basic reading competency of grade-eight students is to understand meanings and rhetorical steps of written descriptive, recount and narrative texts as well as short messages which cover identifying general information, specific information and the meaning of word/phrase/sentence in the texts; identifying the generic structure of the texts; and reading the texts aloud with appropriate pronunciation, stress and intonation. Therefore, it is obvious that the basic reading competency includes both reading comprehension and reading aloud.

Brown (2001: 312) also states that types of classroom reading performance can be categorized into oral reading or reading aloud and silent reading or reading comprehension. 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).

In the School-Based Curriculum, there are two documents which should be accounted for. The first is about the structure and the content of the curriculum. The second is about teaching syllabi. Teachers should elaborate these teaching syllabi further into lesson plans (Permendiknas, 2007). In developing lesson plans, it is also necessary to develop appropriate reading materials that meet the requirement of the curriculum and the principles of instructional materials (Dit.PSMA, 2010).

Dit.PSMA (2010) states that instructional materials should be relevant with the curriculum requirement and should be 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.

Reading materials which meet the criteria of good reading materials as proposed by Dit.PSMA and Tomlinson above are hardly available. Teachers merely use single textbook and teach students classically without the integration of ICT. 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. This ICT-based activity is done by electronically produced materials printed out for learners.

Based on the observation which was conducted at SMPN 1 Kubutambah, this school did not possess sufficient ICT facilities for online learning. Internet access was limited only for the headmaster and his staff. One classroom was used as a language laboratory but the facilities there were out of order. The available facilities that could be used were some computers, a laptop and an LCD.

Besides, the teachers there did not integrate ICT in designing and implementing their reading instructions even though there was possibility to do so. They only used the textbook which was officially recommended. The book merely crammed with reading texts followed with
series of comprehension questions. The reading materials were not adequate to achieve the competencies stated in the curriculum since only descriptive and recount texts were sufficiently developed while announcement, letter and narrative text were not, and there was no special guidance for reading aloud. Thus, the existing reading materials did not meet the criteria of good reading materials.

Considering all these, this study was conducted to develop ICT-based reading materials for grade-eight students of Junior High School at SMPN 1 Kubutambahan which met the criteria of good reading materials as proposed by Dit.PSMA and Tomlinson above.

There were two main research questions formulated in this study: (1) how to develop ICT-based reading materials for grade-eight students of Junior High School at SMPN 1 Kubutambahan which met the criteria of good reading materials? And (2) were the ICT-based reading materials able to improve the reading competency of grade-eight students of SMPN 1 Kubutambahan?

This study was aimed at developing ICT-based reading materials for grade-eight students of SMPN 1 Kubutambahan which met the criteria of good reading materials, and investigating whether the ICT-based reading materials were able to improve the students’ reading competency.

THEORETICAL FRAMEWORK
English Curriculum
Teaching reading as one of the four major skills in EFL learning should be based on the English Curriculum. Under the implementation of Competency Based Curriculum, the English Curriculum is theoretically developed on the basis of Celce-Murcia et al.’s (1995) communicative competence model, Well’s (1987) literacy levels, and Halliday’s functional language model. Moreover, it is psychologically based on Piaget’s cognitive development, Vygotsky’s zone of proximal development, and Bruner’s scaffolding talk (Dit.PLP, 2012: 1-72).

The English Curriculum under the implementation of CBC adopts the schematic representation of communicative competence by Celce-Murcia et al. (1995, cited in Curriculum 2004). The main goal of language teaching and learning is discourse competence—ability to construct texts. To achieve this competence, learners need the supporting competences including linguistic competence, actional competence, socio-cultural competence and strategic competence.

The English curriculum is also literacy-based. Wells (1987, cited in Curriculum 2004) classifies literacy into four levels: performative, functional, informational, and epistemic. The performative level where learners are able to write what they say or to say what is written is a realistic literacy target for English in the elementary schools. Functional level is appropriate for junior high schools in which learners are expected to be able to communicate or to participate in the creation of texts that serves their daily needs to entertain themselves, to read manuals, to carry out transactional exchanges and to write simple descriptions, narratives, reports and recounts. The informational literacy level is appropriate for senior high school and the epistemic level is for English-department graduates at University (Cahyono & Widiati, 2011: 11).

Derewianka (1995) states that a functional approach looks at how language enables us to do things—to share information, to enquire, to construct ideas, to order our experience and make sense of the world. It is concerned with how people use real language for real purposes. At the heart of a functional model of language is an emphasis on meaning and how language is involved in the construction of meaning. It sees language as a resource for making meaning. A functional model of language can be drawn upon during classroom activities based on a ‘process’ or ‘whole language’ philosophy—wherever children are engaged in the construction of texts and opportunities are created for explicit discussion of these texts.

The functional model of language is realized in text-based language learning, also called genre-based approach. A text-based approach to teaching and learning
uses ‘texts’ as the basis for developing a teaching and learning program. This approach is based on the idea that learning to use English is improved when they introduce students to complete spoken and written texts within an appropriate situation, help students to develop an awareness of the linguistic features of spoken and written texts and how they are structured, and construct texts together with the students before they work on their own. The EFL learning is conducted in two cycles, i.e. oral cycle (listening and speaking) and written cycle (reading and writing). And each cycle consists of four stages, namely building the context, modeling, joint construction and independent construction.

![Figure 1. Stages of teaching/learning cycle (Dit.PL, 2005; Nugroho & Hafrizon, 2009)](image)

Building the context is a preparation stage. The students are engaged and their schemata are activated, therefore, they will be ready physically, emotionally and academically to proceed to the modelling stage. Modelling means showing the students what to do, demonstrating and practicing the steps, as preparation for dependent/joint and independent work.

Some psychological considerations which are accounted in the English curriculum are first, Piaget’s view on cognitive development (including linguistic development) as the process of experimenting with the environment and constructing one’s personal meaning of it. According to him, students are active learners. They work through different stages of learning on their own. They are active in the process of language acquisition, the process of constructing meaning (Trawinski, 2005: 15-16; Dit.PL, 2005: 63).

Second, Vygotsky’s view on (1) zone of proximal development (level of skill or knowledge which is just beyond what the learner currently copes with) and (2) mediation (the role played by ‘significant people’ who select and modify the learning materials for the learner and help him/her move to the next zone of proximal development). He views the process of learning as the constant interaction with the mediator (teacher, parent or peer), who modifies the input to make it fine tuned (adjusted) to the cognitive and communicative needs of the learner (Trawinski, 2005: 17-18; Dit.PL, 2005: 64-65).

Third, the support given by mediator (especially adults) is described as scaffolding by Bruner. With scaffolding learners develop and grow because the adults give support to their thinking and learning process (Dit.PL, 2005: 66-67).

These psychological bases give implications to language teaching and learning that, following Piaget’s view, students are active learners. They are active in the process of constructing meaning. Following Vygotsky’s and Bruner’s views, it is equally essential to facilitate students’ learning by providing support or scaffolding.

**Theoretical Bases for Teaching Reading**

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 and extensive reading. Intensive reading covers linguistic and content. Silent reading covers skimming, scanning, and global reading.

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 competency is ability to derive meanings from written texts which includes (1) reading comprehension with the indicators of identifying general information; identifying specific information; deducing meaning from the context (word meaning, reference, inference); and reading aloud with appropriate pronunciation, stress and intonation.

Within the text-based language learning framework, teaching reading is conducted in the first stage of written cycle. And the applicable technique (Brown, 2001; Brewster et al., 2007)) widely used is Pre-, While, and Post-reading (PWP Reading Technique).

Materials Development

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)

Materials development refers to anything which is done by the teachers or learners to provide sources of language input and to exploit those sources in ways which maximize the likelihood of intake (Tomlinson, 2007: 2)

Principles of Materials Development

Dit.PSMA (2010) proposes that instructional materials should be relevant with the curriculum requirement (standard of competency and basic competency) and adequate to achieve the competencies.

In addition, Tomlinson (2007), on the basis of Second Language Acquisition theories/principles, proposes some principles of materials development: (1) materials should achieve impact through novelty, variety, attractive presentation, appealing content and achievable challenge; (2) materials should help learners feel at ease through lots of white space and texts related to their world; (3) materials should help learners develop confidence through exercises slightly
beyond their existing proficiency; (4) materials should facilitate learners' self-investment through engaging them in learner-centered discovery activities; and (5) materials should expose learners to language in authentic use through varied comprehensible authentic inputs.

Criteria of Good Reading Materials

Based on the principles of material development proposed by Dit.PSMA (2010) and Tomlinson (2007) above, the criteria of good reading materials are formulated, i.e. the reading materials should (1) be relevant and adequate to achieve the competencies; (2) achieve impact through novelty, variety, attractive presentation, appealing content and achievable challenge; (3) help learners feel at ease; (4) help learners develop confidence; (5) facilitate learners' self-investment; and (6) expose learners to language in authentic use.

ICT-Based Reading Materials

ICT covers Information Technology and Communication Technology. Information technology concerns with the processes and tools used to sent, retrieve, manipulate and manage information. Communication technology concerns with tools and processes used to transmit data from one device to another.

ICT-based Materials are 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.

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. Moreover, 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. This ICT-based activity is done by electronically produced materials print out for learners. By creating and using their own electronic materials in class, teachers will be able to provide extra practice for learners. As they build up a collection of their own resources with their own learners' needs in mind, they will start to generate a large bank of materials which can be used in class or for self-study at any point in the future. In class these kinds of materials can provide a change of pace and can be highly motivating.

ICT-based reading materials development, in this study, refers to the creation of offline audio-visual reading materials designed by means of computer which meet the criteria of good reading materials with the indicators of being relevant and adequate, achieving impact, helping learners feel at ease, helping learners develop confidence, facilitating learners’ self-investment, and exposing learners to language in authentic use.

METHOD

This study was categorized as Research and Development (R&D) in which the research findings were used to design a new product and procedures, which then were systematically field-tested, evaluated, and refined until they met specified criteria of effectiveness, quality or similar standard (Gall, Gall & Bobg, 2003: 569).

The design of this study was adapted from Dick & Carey’s R&D Design in Gall, Gall & Bobg (2003) and Sugiyono’s (2012) R&D design. This new design was developed to make it simpler and fit the requirement of this study. It basically followed seven steps: (1) need analysis, (2) product design, (3) design evaluation, (4) design revision, (5) field test (CAR), (6) product revision, and (7) prototype product as in the following figure.
The procedures for developing ICT-based reading materials were (1) need analysis: analyzing relevant documents (the curriculum and the materials development guidelines), analyzing the existing reading materials, searching other resources and browsing internet; (2) product design: designing reading materials based on the need analysis; (3) design evaluation: evaluating the design by experts/judges; (4) design revision: revising the design based on the experts/judges’ inputs/feedback; (5) field test: trying out the product through Classroom Action Research (CAR) which follows a cyclic process of planning, acting, observing and reflecting to see its appropriateness and effectiveness; (6) product revision: revising the product based on the field-test results/findings; and (7) prototype product: finalizing the product, i.e. the Prototype of ICT-Based Reading Materials for Grade-Eight Students of Junior High School at SMPN 1 Kubutambahan.

The instruments used for collecting data include anecdotal records, interview guide, observation sheet, questionnaire and test.

Data obtained in this study were analyzed qualitatively and quantitatively. Moreover, the developed products were analyzed conceptually and empirically. Conceptually, the developed products were analyzed using rubric and questionnaire. Empirically, the reading materials were tried out in the classroom and their effectiveness was seen from the result of the pre-test and post-test and the students’ opinions about the reading materials.

**FINDINGS AND DISCUSSION**

The existing reading materials were suffered from some defects such as the reading materials were not adequate to achieve the competencies. There were five texts needed to be developed, namely announcement, descriptive, recount, letter and narrative. Only two texts, descriptive and recount, were sufficiently developed while others were not. There were tasks for reading aloud but there was no sufficient guidance on how to read aloud meaningfully with appropriate pronunciation, stress and intonation.

From the interview, it was found that the reading materials did not have impact; they did not help students feel at ease because they were merely crammed with reading texts and plenty of exercises, not appealing, and difficult; consequently the students did not feel confident and did not invest their time on learning the materials.

Some considerations needed to be taken into account in designing the new reading materials: the reading materials should cover the competency standards and the basic competencies as stated in the School Based Curriculum; both reading aloud and reading comprehension should be equally developed; the reading materials should be supported with reading aloud models (audio recordings); the reading materials should be authentic, up-to-date, varied, attractive, appealing, and related to the students’ world; the reading materials should be illustrated; the exercises should be challenging (slightly beyond the students' existing proficiency) and engaging in learner-centered discovery activities; and there should be lots of white spaces and the comprehension questions are about 5—10 for one text.

Based on the need analyses, a new reading materials design, i.e. ICT-based reading materials design, was developed. Then, the design was evaluated by experts. It was revised and then field tested through Classroom Action Research (CAR). First, Pre-Test was conducted and the students’ scores were recorded and analysed. Then, the planned actions were implemented. It needed ten meetings to implement these ICT-based reading materials. 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.

Table 1 The schedule of field-test.

<table>
<thead>
<tr>
<th>NO</th>
<th>MATERIALS</th>
<th>MEETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYCLE I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Pre-Test I and II</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>Unit 1 Announcement</td>
<td>II &amp; III</td>
</tr>
<tr>
<td>3</td>
<td>Unit 2 Descriptive</td>
<td>IV &amp; V</td>
</tr>
<tr>
<td>4</td>
<td>Unit 3 Recount</td>
<td>VI &amp; VII</td>
</tr>
<tr>
<td>5</td>
<td>Post-Test I</td>
<td>VIII</td>
</tr>
<tr>
<td>CYCLE II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Unit 4 Letter</td>
<td>IX &amp; X</td>
</tr>
<tr>
<td>7</td>
<td>Unit 5 Narrative</td>
<td>XI &amp; XII</td>
</tr>
<tr>
<td>8</td>
<td>Post-Test II</td>
<td>XIII</td>
</tr>
</tbody>
</table>

The results of Pre-Test I and Post-Test I were shown in table and graph below.

Table 1. The means of the students’ scores on Pre-Test I and Post-Test I.

<table>
<thead>
<tr>
<th>Reading Competency</th>
<th>Pre-Test I</th>
<th>Post-Test I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score</td>
<td>148.2</td>
<td>212</td>
</tr>
<tr>
<td>Mean</td>
<td>4.9</td>
<td>7.1</td>
</tr>
<tr>
<td>Gain Score</td>
<td>2.1</td>
<td></td>
</tr>
</tbody>
</table>

Graph 1. The means of the students’ scores on Pre-Test I and Post-Test I

The mean of the students’ scores on the Post-Test I was higher than that on the Pre-Test I. The gain score was 2.1.

The difference between the means of the students’ scores on the Pre- and Post-Test I was analyzed using student’s t-test. It was found out that the t-calculated was 17.067 while t-critical value was 2.045 at the .05 level of significance and 2.756 at the .01 level of significance. Therefore, there was a very significant improvement of the students’ reading competency in the first cycle.

This improvement also happened on the Post-Test II in the second cycle. The results of Pre-Test II and Post-Test II were shown in the following table and graph.

Table 2. The means of the students’ scores on Pre-Test II and Post-Test II.

<table>
<thead>
<tr>
<th>Reading Competency</th>
<th>Pre-Test II</th>
<th>Post-Test II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score</td>
<td>138.2</td>
<td>204.3</td>
</tr>
<tr>
<td>Mean</td>
<td>4.6</td>
<td>6.8</td>
</tr>
<tr>
<td>Gain Score</td>
<td>2.2</td>
<td></td>
</tr>
</tbody>
</table>

Graph 2. The means of the students’ scores on Pre-Test II and Post-Test II

The mean of the students’ scores on the Post-Test II was higher than that on the Pre-Test II. The gain score was 2.2.

From student’s t-test analysis, it was revealed that the t-calculated was 16.393 while t-critical value was 2.045 at the .05 level of significance and 2.756 at the .01 level of significance. Therefore, there was
also a very significant improvement of the students' reading competency in the second cycle.

The result of the questionnaires could be shown in the following table.

Table 3. The result of the questionnaires

<table>
<thead>
<tr>
<th>No</th>
<th>Good Reading Materials Indicators</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Being relevant and adequate to achieve the competencies.</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Achieving impact through novelty, variety, attractive presentation, appealing content, and achievable challenge.</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>Helping learners feel at ease.</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>Helping learners develop confidence.</td>
<td>100%</td>
</tr>
<tr>
<td>5</td>
<td>Facilitating learners' self-investment.</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>Exposing learners to language in authentic use.</td>
<td>100%</td>
</tr>
</tbody>
</table>

The table above shows that the ICT-based reading materials matched completely the criteria of good reading materials (met the curriculum requirements and the Second Language Acquisition principles).

After several revisions based on the inputs, corrections, and comments from the experts, practitioners (teachers), and the students, the final product of this study was produced. It was the Prototype of ICT-Based Reading Materials for Grade-Eight Students of Junior High School. It was also supported with Teacher’s Manual, Audio Recordings and PowerPoint Presentations.

These ICT-based reading materials can be implemented even though there is no internet connection at school; at least there is a CD player. The reading materials can be printed out for the students and the audio recordings can be played using the CD player. The audio recordings are very compatible so that, if necessary, they can be copied and played using mobile phone or other audio players. This enables the students to play the audio recordings as much as they need.

If there are computer, loud speaker and LCD at school, teachers can do much more varied activities. They can display the PowerPoint presentations to the class. They can make variations on their teaching. They can show and demonstrate how to complete the tasks. These activities can provide a change of pace and highly motivate the students.

**CONCLUSION**

Reading materials for grade-eight students of Junior High School should be relevant with the requirement of the curriculum (competency standards and basic competencies) and adequate to achieve the competencies. Besides, they 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.

The integration of ICT in developing reading materials made it possible to meet all the requirements above. Even though there was no sufficient ICT facility at school, teachers can develop offline ICT-based reading materials in which they need to use Internet mainly as a resource, accessing the Internet to download and print out materials to use offline with classes or create their own electronic reading materials printed out for learners.

Based on the findings of this study, it was concluded that (1) ICT-based reading materials were developed based on the criteria of good reading materials and other relevant sources. The reading materials were then evaluated by experts, revised based on the experts’ inputs, and then field tested. The results of the field test were used as the bases on which to re-revise the reading materials until producing the final product, i.e. the Prototype of ICT-Based Reading Materials for Grade-Eight Students of Junior High School. These reading materials were supported with Teacher’s Manual, Audio Recordings and PowerPoint Presentations; (2) the ICT-based reading materials were able to improve the reading competency of the students in the second cycle.
competency of the grade-eight students of SMPN 1 Kubutambahan significantly. The significant improvements of the students’ reading competency occurred both in the first and in the second cycle during the field test (Classroom Action Research).

SUGGESTION
Considering that this study was aimed at producing the prototype of ICT-based reading materials for eight-grade students of Junior High School which met the criteria of good reading materials, it was suggested that a broader field test still needed to be done in order to achieve a better result.

The findings of this study revealed that this kind of reading materials was able to improve the students’ reading competency significantly. Therefore, teachers are encouraged to develop the same sort of materials. This will bring a change and improvement on their professionalism as well as their students’ proficiency.

Other researchers who are interested in the incorporation of ICT in learning and teaching are suggested to conduct further investigation which possibly deals with other language skills.

REFERENCES


