

PICTO-TEXT GLOSSES TO ENHANCE STUDENTS' READING COMPREHENSION

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Abstract:

One of students' difficulties in comprehending a reading text is their limited vocabulary. Therefore, this article is aimed to provide practical recommendation for EFL teachers to use picto-text (pictorial and textual) glosses in reading materials to help students' become familiar to the terms used in the text that will eventually improve their reading comprehension.

Key Words:

Reading Comprehension, Reading Material, Glosses

A. Introduction

Reading is one of the key factors to succeed in life as every aspect of our life involves reading.¹ In educational contexts, reading is the most essential skill to gain success and it is one of the knowledge needed by learners who want to use the L2 as a medium in a specific professional or occupational field², which can be related to vocational education (Sekolah Menengah Kejuruan/ SMK). In order to prepare vocational students with working competence, expertise, and skillful capability that meet the real

needs of employers, English Language Teaching (ELT) in vocational schools needs to have suitable reading materials closely related to students' program expertise/future work field. English teachers, thus, have responsibilities to develop their students' reading motivation by selecting appropriate materials, as teachers are materials developers and that they are ultimately responsible for the materials that the learners use.

The booming of computers, internet connections and smart gadgets use today have directed teachers to take this opportunity to create exciting and meaningful learning activities through internet and smart gadgets, for example by browsing, or downloading, or copying learning activities through such portable gadgets as laptops, smart phones or tablets. Related to reading material, one type of material that is operated through computer or smart gadget is web-based

¹ H. Douglas Brown, *Teaching by Principles: An Interactive Approach to Language Pedagogy* (White Plains, NY: Pearson Education, 2007); Muriel Saville-Troike, *Introducing Second Language Acquisition* (New York: Cambridge University Press, 2006); Gunadi Harry Sulisty, *Reading for Meaning: Theories, Teaching Strategies, and Assessment* (Malang: Pustaka Kaiswaran, 2011).

² Murielle Saville-Troike, *Introducing Second Language Acquisition*. (New York: Cambridge University Press, 2006).

reading material equipped with picture-and-text (picto-text) glosses. While using this material, students can read texts related to their vocational expertise or interests, click/hover the mouse on certain words they are not familiar with, and see the pictures as well as definitions of the words on the screen of their laptops/ tablets/ smart phones. Therefore, the aim of this study is to show how reading vocational text by using picto-text glosses improves students' reading comprehension.

B. Theoretical Framework

1. Reading Comprehension

While reading activity is an active occupation,³ a visual process that begins with one's ability to use one's vision to interpret graphic symbols to get a message from text⁴, reading comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language through a reciprocal, holistic interchange of ideas between the reader and the message in a particular context.⁵ It is the

³ Jeremy Harmer, *The practice of English language teaching (4th ed.)* (Edinburgh, UK: Pearson Education Limited, 2007).

⁴ It is explained by Decant 1991 as cited in Stephanie Macceca, 2007. *Reading Strategies for Science*. (Huntington Beach USA: Shell Education, 2007), and Christine E. Nuttall, *Teaching Reading Skills in a Foreign Language* (Oxford: Heinemann, 1982).

⁵ C. Snow, *Reading for Understanding: Towards an R&D Program in Reading Comprehension*. (Washington, DC: RAND Reading Study Group, 2002).

process of making a sense out of a text as the result of interaction between the perception of graphic symbols that represent language and the reader's prior knowledge⁶ which requires readers to use their basic skills and advanced strategies.⁷ brown⁸ confirms that in this process, the reader interacts with the writer through a text as the reader tries to elicit the meaning using various kinds of knowledge: linguistic or systemic knowledge through bottom-up processing as well as schematic knowledge through top-down processing. From these statements we can conclude that reading is an active interaction between readers and text, in which readers need to use some effective and strategic efforts to comprehend a text.

2. Macro and Micro Skills in Reading

In order to become efficient readers,⁹ Brown states that EFL students need to acquire the micro and macro skills for reading comprehension. The micro skills of reading, which covers things related to the language components, include (a) discriminating among the distinctive graphemes and ethnographic patterns of English, (b) retaining chunks of language of different lengths in short-term memory, (c)

⁶ John D. McNeil, *Reading Comprehension : New Directions for Classroom Practice*, (New York : Harper Collins, 1992).

⁷ Sulisty, *Reading for Meaning:*

⁸ Brown, *Teaching by Principles*

⁹ Ibid.

processing writing at an efficient rate of speed to suit the purpose, (d) recognizing a core of words, and interpreting word order patterns and their significance, (e) recognizing grammatical word classes (nouns, verbs, etc.), systems (e.g., tense, agreement, pluralization), patterns, rules, and elliptical forms, and (f) recognizing that a particular meaning may be expressed in different grammatical forms.

On the other hands, the macro skills of reading comprise of reading comprehension that include (a) recognizing cohesive devices in written discourse and their role in signaling the relationship between and among clauses, (b) recognizing the rhetorical forms of written discourse and their significance for interpretation, (c) recognizing the communicative functions of written texts, according to form and purpose, (d) inferring context that is not explicit by using background knowledge, (e) inferring links and connections between events, ideas, etc.; deducing causes and effects; and detecting such relations as main idea, supporting idea, new information, given information, generalization, and exemplification, (f) distinguishing between literal and implied meanings, (g) detecting culturally specific references and interpret them in a context of the appropriate cultural schemata, and (h) developing and using a battery of reading strategies such as scanning and skimming, detecting discourse markers, guessing the

meaning of words from context, and activating schemata for the interpretation of texts.

3. Activities to Promote Reading Comprehension

In order to help students develop the skills they need to read more effectively in a variety of ways, teachers should plan 'pre-reading', 'while-reading', and 'post-reading' activities.¹⁰

a. Pre-Reading Activities

Pre-reading activities aimed to raise students' schematic knowledge that will help them to comprehend a text when they already have a sense of what they are going to read. The activities include (a) predicting from words, (b) predicting from titles or first sentences of some paragraphs, (c) predicting from key illustrations, (d) sequencing illustrations, (e) reader questions, (f) story-telling, (g) story-telling in mother tongue, (h) sharing existing knowledge, and (i) the K and W of KWL strategy.

b. Whilst-Reading Activities

The main purpose of whilst-reading activities is to model good reading strategies, so that in the end the students will become autonomous readers with good reading habits and strategies. The activities in this stage of reading include modeled reading, skimming and scanning, re-reading, shared books and word masking (for

¹⁰ Ibid.

young learners), pause and predict, summarizing, jigsaw reading, and reading aloud (by the teacher).

c. Post-Reading Activities

The purposes of post-reading activities are (1) using the text for “recycling” language, (2) using the familiar text as basis for specific language study (pronunciation/reading aloud/grammar/vocabulary), (3) allowing students to respond creatively, and (4) focusing the students more deeply on the information in the text (probably from a different point of view). The activities that most likely promote such reading purposes are story innovation, innovation on the ending, cartoon strip, reader’s theatre, wanted posters, story map, summarizing or reconstructing based on story map, time lines, hot seat (a student acts as a character in a story), cloze, text reconstruction, jumbled sentences, picture and sentence matching, true/false questions, questioning the text/critical reading, personalizing, dramatizing, crossword puzzle, poetry writing, the L of KWL strategy, reading aloud by the students for pronunciation/intonation, and language study.

4. Media for Teaching Reading Comprehension

Reading comprehension can be done through low-technology and high-technology media. Low-technology media is a media which use non-computer assistance to help the process of learning, such as the use of photographs, posters, charts, and realia. On the other hands, high-technology media rely on the computer assistance in the process of teaching. The now-so-called Computer-Assisted Language Learning (CALL) media include e-mail, chats, blogs, websites, CD-ROM, multimedia (e.g. PowerPoint), software programs, etc. The rapid growth of technology also introduces Mobile-Assisted Language Learning (MALL), in which the learning process can be done through the assistance of such modern gadgets as cell (mobile) phones (including the iPhone or iPad), MP3 or MP4 players (e.g. iPods), Personal Digital Assistants (PDAs) (e.g. Palm Pilot, Blackberry), etc.

The booming of smart gadgets use today has directed English teachers to take this opportunity to create exciting and meaningful learning activities through smart gadgets for example smart phones or tablets. This kind of method is then frequently called mobile learning. Mobile learning utilizes innovative wireless technologies which help to make study activities both more accessible and more portable.¹¹ It has

¹¹ A.K. Hulme, “Mobile Usability in Educational Contexts: What have we learnt?” *International Review of Research in Open and Distance Learning* Volume 8, Number 2. 2007.

been defined as a certain type of a learning model which allows students to get and use learning materials through the portable devices anywhere and anytime.¹² Additionally, due to its desirable characteristics, namely: spontaneous, personal, informal, contextual, portable, ubiquitous and pervasive,¹³ mobile learning allows access to educational activities and materials at any time, incorporates the qualities of different media to make the experience of every learner personal by affective means and it also responsive to the factors of time, location, and learners' present activity.¹⁴

In accordance to the advantage of using computers and portable devices in creating attractive and meaningful learning materials, this paper provides a reading material in web-based platform

(Online), (<http://telearn.archives-ouvertes.fr/docs/00/19/00/26/PDF/356-3034-1-PB.pdf>) retrieved October 30, 2015.

¹² T.H. Dang, "Towards the Use of Mobile Phones for Learning English as a Foreign Language: Hesitation or Welcome?" *Journal Language in India*. 2013. (Online). www.languageinindia.com. Retrieved October 30, 2015.

¹³ Hulme, "Mobile Usability in Educational Contexts: What have we learnt?", and M. Madiopé, *The feasibility of using audio podcast mobile technology to teach research writing in open distance learning: Case of University of South Africa*. 2013. Unpublished Dissertation. (Online), (http://uir.unisa.ac.za/bitstream/handle/10500/11967/thesis_madiopem.pdf?sequence=1) retrieved October 30, 2015.

¹⁴ Y. Setyowati, *Mobile Comics As a Media to Enhance Literature's Sense to Young Learners*. 2014. The 61st TEFLIN International Conference, UNS, Solo.

that will enable students to easily access the materials in a website through their laptops, tablets, or mobile smart phones. This product, and its motivating, independent, autonomous learning activity, goes with Clarke's¹⁵ statement that computer-based learning has a potential to provide a highly-motivating learning experience through the use of engaging and adaptable materials presented in such features as image, sound, animation, video, color and texts that can be used as an alternative to overcome such poor reading condition in the field. This also in-line with Maley's (2009) statement that reading is an effective way to develop learner autonomy as it is an individual activity in which learners can start and stop reading whenever and whenever they want. It can stimulate learners' imagination by visualizing and interpreting what they read. Therefore, providing an interactive reading material is needed to foster learner's motivation and learning autonomy.

Additionally, the use of feature-rich computerized glosses in this web-based reading material will also influence students' reading comprehension and vocabulary acquisition.¹⁶ This is in-line with Mayer's

¹⁵ Alan Clarke, *Designing Computer-Based Learning Materials* (Burlington, USA: Gower Publishing Company, 2001).

¹⁶ E.B. Salem & R. Aust, R. *The Influence of Feature-Rich Computerized Glosses on Reading Comprehension and Vocabulary Acquisition*. Proceedings of the Sixth IASTED International Conference on Web-Based

cognitive theory¹⁷ of multimedia learning that information can be presented in two forms: words (printed or spoken) and pictures (static or dynamic).¹⁸ Integrated with prior knowledge, the perceived words and pictures form cognitive process of comprehension that will perform longer retention (see Figure I on Appendix.

5. Picto-Text Glosses in Vocational Reading

Reading for vocational education should focus on the English for Specific Purpose (ESP) in order to fulfill the needs of vocational students to be successful in doing their future work field, e.g. automotive, computer, business administration, agriculture, fashion, culinary, tourism, etc. Therefore, teacher should prepare reading material that provides interesting topics which enable students to engage with their interest.¹⁹ By providing reading materials that are interesting and relevant to students' goals in learning English, which is being proficient in their future work field, students will be more motivated because they know that what

they read will be beneficial for their future.²⁰

Picto-text (picture-and-text) glosses offered vocational students more focus and understanding on certain terms related to their work field/ expertise. In a web-based reading material with picto-text glosses, students can read text related to their expertise, click/hover the mouse on certain words they are not familiar with, and see the pictures as well as definitions of the words on the screen. This way, picto-text glosses can boost learners' vocabulary acquisition.²¹

Glosses, short definitions or explanations of the meaning of words are potential in helping students improve their reading comprehension because it has several benefits that include preventing incorrect guessing, minimizing interruption caused by looking up the dictionary, connecting background knowledge and the text, and encouraging students' autonomy.

²⁰ See on Brown and Harmer, see also M. Williams, & R. Burden, *Psychology for Language Teachers* (Cambridge: Cambridge University Press, 1997).

²¹ A. Baktiyan, *The Effectiveness of Textual and Pictorial Glosses in Reading Comprehension and Vocabulary Mastery*. Unpublished Master Thesis. Malang: PPs UM, 2014. See also D.M. Chun & J.L. Plass, "Effects of Multimedia Annotations on Vocabulary Acquisition." *The Modern Language Journal*, 80 (2), 183-198, 1996. and I. Yanguas, Multimedia Glosses and Their Effect on L2 Text Comprehension and Vocabulary Learning. *Language Learning & Technology*, 13 (2), 48-67. 2009. Online. (<http://lit.msu.edu/vol13num2/yanguas.pdf>). Retrieved December 14, 2015.

Education held in Chamonix, France, March 14-17, 2007.

¹⁷ Alan Clarke, *Designing Computer-Based Learning Materials*.

¹⁸ Richard E. Mayer and Roxana Moreno, Nine Ways to Reduce Cognitive Load in Multimedia Learning. *Educational Psychologist*, 38 (1), 43-52, 2003.

¹⁹ Harmer, *The practice of English language teaching*.

Nagata also supports the use of gloss because it is easier than consulting a dictionary, it can attract readers to “target words,” it helps readers to connect words to meaning immediately and in carrying out “lexical processing,” which eventually may lead to vocabulary retention.

Kost, et al. studied three types of glosses: Text-only (L1), Picture-only, and Text-and-Picture with American students who were studying German as an L2 in a second semester course.²² It was revealed that the combination of Text-and-Picture glosses was the most effective of the three types. Among the few studies that have examined the effect of glossing with computerized materials, Chun and Plass (1996) and Plass, et al. (1998) have conducted a series of experiments examining the effect of different types of multimedia glosses for American university students who were studying German as an L2 in intermediate level classes.²³ These studies had a within-subjects design, and students had the option of choosing from the different types of glosses: text (L1), pictures, and video. The results showed that students were able to remember more vocabulary words when they had accessed the combination of text and pictures.

²² M. Yoshi & J. Flaitz, “Second Language Incidental Vocabulary Retention: The Effect of Text and Picture.” *CALICO Journal*, 20 (1), p-p 33-58. 2002.

²³ .Chun & Plass, Effects of Multimedia Annotations on Vocabulary Acquisition.

Nagata (1999) also conducted an experiment which was basically a computerized version of Watanabe’s (1997) study. She compared the effectiveness of a single gloss and a multiple-choice gloss as American college students taking the second semester Japanese course read a text on the computer. She found that the multiple-choice gloss was significantly more effective than the single gloss.²⁴

A combination of both Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) media in reading, picto-text glosses in vocational readings can be easily accessed by students in a website through their laptops, tablets, or mobile smart phones. It is very practical for students as they can access the materials and learn in their own convenient time and place. Its web-based platform provides a highly-motivating learning experience and foster learner’s autonomy (Clarke’s, 2001; Maley’s, 2009).

6. Steps in Developing a Picto-Text Glosses Reading Material

The following discussion focuses on the steps of developing a picto-text

²⁴ Nagata and Watanabe’s opinions as cited in Yoshi and Flaitz, “Second Language Incidental Vocabulary Retention: The Effect of Text and Picture.”

glosses reading material for vocational high school students. This material will utilize computer in its development and operation, and will take these platforms: a Microsoft PowerPoint-based for offline use and a web-based for online use. Both platforms can be accessed through computers, laptops, tablets, and smart phones.

To make a picto-text glosses reading material in a Microsoft PowerPoint-based platform, the steps, as stated by Hartaty are as follows:²⁵

1. Create a transparent box on the target word.
2. Put the definition and the picture on the side.
3. Add an animation effect to both the definition and picture: Entrance → Appear and Exit → Disappear.
4. Right click the effect, choose Timing, then Triggers, choose the transparent rectangle.
5. If necessary, time the Exit effect.

As for in a web-based platform, one can make a picto-text glosses reading material by repeating the steps above and post it in website in HTML mode. The result can be seen in Picture 1.1 in Appendix.

C. Conclusion

Due to the salient characteristics of vocational educations, English

teachers need to provide materials that will fulfill their needs, a material with topics closely related to the learners' future work field/ expertise. In reading activity, a computer-based reading material that is equipped with picture-and-text (picto-text) glosses is strongly recommended as it offers vocational students more exposure to some English terms related to their work field that will boost their motivation and eventually improve their vocabulary acquisition and reading comprehension.

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²⁵ Hartaty, *Using Picto-Textual Glosses to Teach Reading: A Collaborative Action Research*.

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Appendix

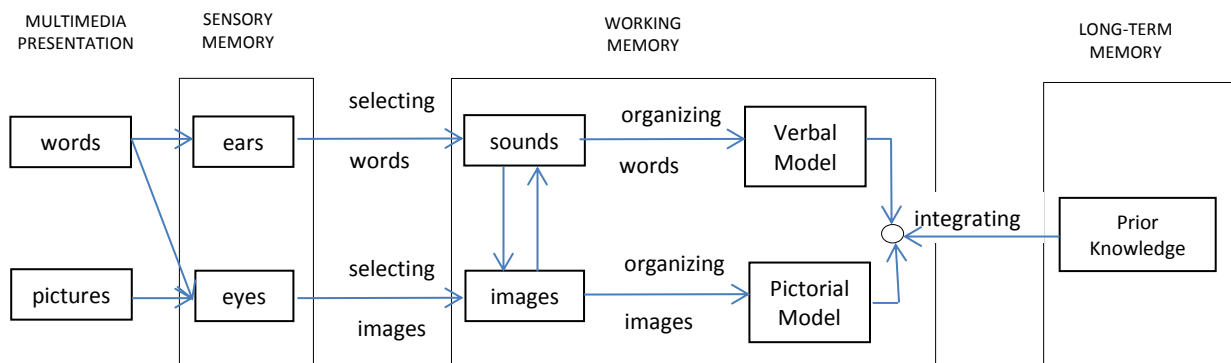


Figure I. Mayer's Cognitive Theory of Multimedia Learning

The screenshot shows a digital reading interface titled "How to Clean a Digital Camera". The text includes instructions on cleaning a camera, such as using a soft brush, air blower, or dry cloth, and paying attention to inaccessible areas like memory card slots. A Picto-Text Glosses overlay is visible, showing a photograph of a camera's memory card slot and a definition: "Memory card slot is a special slot for inserting a memory card. Memory cards allow you to expand a camera's or a phone's built-in memory (www.gsmarena.com)". Below the text, there are three exercise boxes labeled "Exercise 1", "Exercise 2", and "Exercise 3". At the bottom right, there is a button that says "Go to the next reading stage: NOW I KNOW".

Picture 1.1: Text with Picto-Text Glosses