

Learning Vocabulary through Paper and Online-Based Glossary

Ratih Novita Sari*

University of Muhammadiyah Prof. DR. HAMKA (UHAMKA), Jakarta, Indonesia

DOI: 10.22236/JER_Vol1Issue2pp144-157

This study examined the effect of teaching glossary and personality traits on vocabulary learning. Two groups of students who had different personality (extroverted and introverted) were exposed to two types of glosses: paper and online-based glossary. The two groups underwent two-month treatment. Prior to and after the treatment, each group was given pre and posttest. In calculating the data, two-way ANOVA was used. The results of the study showed that extroverted students learned vocabulary better through paper-based glossary, while introverted students learned vocabulary better through online-based. Further research needs to be conducted to determine whether age influences the use of teaching glossary or not.

Keywords: personality learning style, introvert and extrovert, paper-based glossary, online-based glossary.

Studi ini meneliti pengaruh pengajaran menggunakan glossary dan kepribadian terhadap pembelajaran kosa kata. Dua kelompok siswa yang memiliki kepribadian berbeda (extrovert dan introvert) diberikan dua tipe glossary: glossary berbasis online dan kertas. Dua kelompok tersebut diajarkan selama dua bulan. Sebelum dan sesudah perlakuan, setiap kelompok diberikan tes awal dan akhir. ANOVA dua arah dipergunakan untuk menghitung data. Hasil studi ini menunjukkan bahwa dalam pembelajaran kosa kata, siswa extrovert lebih mudah belajar dengan menggunakan glossary berbasis kertas, sedangkan siswa introvert lebih cepat belajar kosa kata melalui online. Studi lanjutan perlu dilakukan untuk mengetahui apakah usia juga berpengaruh terhadap pembelajaran menggunakan glossary.

INTRODUCTION

Realizing that vocabulary mastery is important, teachers could be the one responsible for increasing their students' vocabulary mastery. They need to provide students with vocabulary learning activities both inside and the outside classroom. Based on the pre-observation at one of junior secondary schools in Bandar Lampung Province, Indonesia, it was found that some

* Corresponding author. Email: ratihnovitasari@uhamka.ac.id

English teachers seldom give much exposure to English both inside and outside the classroom which may be caused by some problems. First, teachers were busy feeding their students with the topics or themes on the syllabus which should be taught before the final examination. Second, teachers seem uncreative; they did not use variation of media in teaching and hence tended to rely on the textbooks and modules provided by the school.

There have been some ways to improve students' vocabulary. One of them is using glossary. Some studies (e.g. Hong, 2010; Jacobs, Dufon, & Fong, 1994; Ko, 2005; Lomicka, 1998; Pishadam & Ghahari, 2011) have shown that the use of paper-based glossary, also known as traditional glossary, can enhance students' vocabulary mastery and reading comprehension. On the other hand, Yanguas (2009) and Taylor (2006), who focused on online-based glossary or CALL (Computer Assisted Language Learning) glossing, also argue that CALL glossing is effective for reading and improving learners' proficiency.

Although there have been some studies done on the impact of glossing, most of them only focus on paper-based glossary and online glossary on improving L2 reading comprehension and vocabulary mastery. However, little attention has been paid to connect glossary and personality learning styles. Therefore, this study aims to investigate this matter as this seems important to know students' personality learning styles in order to choose appropriate teaching techniques in enhancing students' vocabulary. Three questions were posed in this study: (1) Is there a significant difference between students taught using online-based glossary and those taught using paper-based glossary in their mastery of vocabulary? (2) Is paper-based glossary more effective for extroverted or introverted students in their vocabulary mastery? (3) Is online-based glossary more effective for introverted or extroverted students in their vocabulary mastery?

Paper-based Glossary

Many authors have attempted to define glossary. Ko (2005) defines glossary as one type of input modification. Input modification is a pedagogical intervention in which a teacher manipulates a target form to help learners acquire the form. For example, listening materials and reading passages in English Language Teaching (ELT) textbooks are often modified to meet learner needs. Lomicka (1998) states, "typically located in the side or bottom margins, glosses are most often supplied for 'unfamiliar' words, which may help to limit continual dictionary consultation that may hinder and interrupt the L2 reading comprehension process" (p. 41). Roby (1998) states that "glosses are many kinds of attempts to supply what is perceived to be deficient in a reader's procedural or declarative knowledge" (p.96). Moreover, it can be concluded that glossary is an input which is usually located in the side or bottom margins to help learners acquire the new words easily. Robby (1998) also comments that to attract learners' attention, glossed words or information can be in bold. The following is the example of paper-based glossary:

Figure 1: The example of paper-based glossary

Police keep Hercules in detention
The Jakarta Post, Jakarta | Jakarta | Wed, March 20 2013, 6:14 AM

The Jakarta Police have refused to **grant** suspension of detention to Hercules Rozario Marshal, who was named a **suspect** in an **assault** case. "It's investigators own consideration [not to grant the suspension of detention] to make the investigation easier," Jakarta Police **spokesman** Sr. Comr. Rikwanto told reporters on Tuesday at the police's headquarters.

grant (*memberikan*); **suspect** (*tersangka*); **assault** (*penyerangan*);
spokesman (*juru bicara*)

It is believed that paper-based glossary can be used to enhance new vocabulary acquisition in learning foreign language and to facilitate incidental vocabulary learning. The similar opinion also applies to online-based glossary. Ko (2005) mentions that there are four advantages of glossary. First, glossary can help readers know new words more accurately. Sometimes, the readers tend to guess the unknown words instead of looking up the words in dictionary. As a result, incomprehension may occur.

Second, glossary can help readers to be uninterrupted while they are reading. Since the form of glossary is on the marginal reading text or in the boldface and underlined, it may be easy for the readers to see the meaning of the unknown words. The readers only need to move their eyes when reading paper-based passages or click the boldface/underlined words for online passages.

Third, glossary can help readers connect prior knowledge with new knowledge in a text, which can help them understand and remember the content of the text. Sometimes, a word can contain several meanings that can make the readers confused to choose the correct one. Glossary will provide the meaning based on the context, so the readers could connect their understanding about the new word with the prior knowledge.

Finally, glossary can allow readers for greater autonomy. They can look up the words they do not know. Glossary may make the readers become independent readers; this is because they can choose which unknown words they need to see independently without disturbing their attention and others while reading.

Online-based Glossary

Hong (2010) states that although the Computer Assisted Language Learning (CALL) approach is still new, computer technology has been involved in promoting the process of language learning due to the fact that it is capable of carrying out more tasks than simply text processors. Nowadays, many language educators use CALL to enhance students' vocabulary acquisition.

One of CALL products is CALL glossary. CALL glossary is the glossary put in the computer and accessed online. It has many names, for example, electronic glossary, hypermedia or hypertext glossary, electronic glossary, or online glossary. In this study, the term is referred to as online-based glossary. Roby (1998) states electronic glosses can take many forms. The

online glossary usually links to others media (e.g. text + sound or text + image + video) which called hypertext or hypermedia.

Online-based glossary is vocabulary annotations in the hypertext format that contain information about a word in a text that appears on the same screen as the text and can be viewed by the learners as long as and as often as it is needed. The figure below is the example of online-based glossary used in this study.

Figure 2: The example of online-based glossary taken from writer's blog



Online-based and paper-based glossary is different. According to Lenders (2008), online-based glossary provides options that are not provided by paper text. It, for example, can facilitate vocabulary learning in a way that is not possible with printed texts. Nevertheless, many learners seem reluctant to read long passages from the screen. Therefore, Gorder (2001) suggests that reading from the screen works best when clues such as columns, margins, or pagination similar to the ones of printed texts are also included in this study; that is why in online-based glossary, the researcher used the same font and size of word with the paper-based glossary.

Introverted Learners

Hjelle and Ziegler (1992) define introversion as quiet and dedicated on self-character, while Carver and Scheier (2008) state that someone with introvert personality will be inactive in social contact; he would love to hide the activities alone. According to Berecz (2008) introvert personality will lead someone to his own world and fantasies, while Pervine, Cervone and John (2010) comment that since the physical and mental condition of introverted people is weaker, they tend to work by using intelligence. On the other hand, Moody (1988) argues that introverted people is a thinker; they will think to make decision and do not like to express his feelings.

Based on the above mentioned ideas, it could be inferred that introverted person tends to be inactive in social life, quiet, thoughtful, and more sensitive. They prefer to reflect before acting, tend to consider their own viewpoint (the arbiter of reality), and define externals in terms of the viewpoint. They also defend themselves against the expectations and attention

of others. They are reserved, complex, and private and usually self-aware but may not realize their effect on others. Someone with this personality is hard to express the feeling and love to hide everything alone. With regard to introverted learners, they seem to be suitable with online-based glossary since the glossary provides independent situation which is in line with the characteristic of introverted learners.

Extroverted Learners

Most people think that some characteristics of extroverts such as outgoing and talkative are inherited by extroverted parents too. This stereotype might be true. Apart from outgoing, Hjelle and Ziegler (1992) comment that extroverts are friendly, so someone with this personality would be easier to have relationship with others. Carver and Scheier (2008) state that extroverted people love social contact, while Berecz (2008) states that extroverted people love parties and fun. Pervine, Cervone and John (2010) argue that extroverted people are mentally stronger than introverted ones. That is maybe why extroverted people will be confident to try something new and easy to adapt the new environment (Moody, 1988).

In the social life, extroverts find energy in things and people. They prefer interaction with others and tend to be action-oriented. They also tend to think on their feet. They talk more than listen. Extroverted learners learn by teaching others. They do not normally understand the subject until they try to explain it to themselves or others (working in groups). In the classroom, extroverts are more likely to talk a lot and seek new acquaintances.

Extroverts also enjoy social interactions and tend to be enthusiastic, verbal, assertive, and animated. Extroverts are likely to enjoy time spent with people and find themselves energized by social interaction. On the other hand, extroverts appear to bring less neural arousal to their interactions with the outside world and thus may seek external stimulation. As a result, extroverted people usually have good physical condition. Since the extroverted learners are interested in concrete experience, interaction with people outside their learning circle, and relationship with others, it can be assumed that it would be more appropriate for the paper-based glossary.

METHOD

Research Design

The study was experimental research and used two classes as the experimental class and one as the control class. To be more specific, the researcher applied 2 x 2 factorial designs. There were two groups of personality learning styles (extroverted and introverted) and two strategies (online-based glossary and paper-based glossary). Thus, the samples were classified into four different classes (or cells). Both experimental classes and control class were given the post-test to measure the students' incidental vocabulary learning after having the treatment.

Table 1: The experimental design

		Factor B	
Factor A		B ₁	B ₂
A ₁		A ₁ B ₁	A ₁ B ₂
A ₂		A ₂ B ₁	A ₂ B ₂

Note:

- Factor A : Personality Learning Styles
- A₁ : Extroverted
- A₂ : Introverted
- Factor B : Teaching Glossary
- B₁ : Online-Based Glossary
- B₂ : Paper-Based Glossary
- A₁B₁ : Extroverted using Online-Based Glossary
- A₁B₂ : Extroverted using Paper-Based Glossary
- A₂B₁ : Introverted using Online-Based Glossary
- A₂B₂ : Introverted using Paper--Based Glossary

The researcher designed the glossary into reading passages based on the underlined words made by the students. Before giving the treatment, the researcher distributed two pages of reading passages, then the students were asked to underline the words whose meaning they did not know. The researcher took 20 underlined words which were developed into reading passages including the glossary and were displayed on the paper and online-based glossary forms.

Population and Sample

The target population in this study was the students at one of junior secondary schools in Bandar Lampung Province, Indonesia. There were eight classes consisting of 25 students, so the total number of students was 200. From the population, 50 students were selected as the experimental class; they were taught using online-based glossary. 25 students in the control class were taught using paper-based glossary.

Data Collection Techniques

The researcher used two data collecting techniques: vocabulary test and questionnaire. After trying out the vocabulary test several times, finally the researcher got 40 test items that were used as the post-test to measure students' vocabulary mastery after having the treatment. Questionnaire used in this research was introversion-extroversion questionnaire. The items were adopted and translated from the questionnaire of Heyne (2009). The question items for extroverted or introverted students were 15 items, and both of them were scored by using Likert- type scales.

The Statistics Applied in the Research

The data were analyzed using Statistical Product Service Solution (SPSS) version 20.0. The statistics applied in the research were given below:

1. To know the significant difference between students who used online-based glossary and those who used paper-based glossary in their vocabulary mastery, the Sig-Value of teaching glossary and Critical Value were used.
2. The average mean and the standard deviation were calculated to analyze which teaching glossaries were effective for extroverted and introverted learners.

FINDINGS AND DISCUSSION

Findings

There is no significant difference between students who used online-based glossary and those who used paper-based glossary in their vocabulary mastery.

To prove whether the H_0 is accepted or rejected, the researcher used the calculation as presented in the Table 2 below:

Table 2: Tests of between-subjects effects

Dependent Variable: Vocabulary Mastery					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	364.393 ^a	3	121.464	1.803	.174
Intercept	135108.036	1	135108.036	2005.846	.000
Teaching_Glossary	211.750	1	211.750	3.144	.089
Personality_LearningStyles	1.750	1	1.750	.026	.873
Teaching_Glossary * Personality_LearningStyles	150.893	1	150.893	2.240	.148
Error	1616.571	24	67.357		
Total	137089.000	28			
Corrected Total	1980.964	27			

a. R Squared = .184 (Adjusted R Squared = .082)

From the previous Table (2), the Sig –Value of teaching glossary was **0.089**. When Sig-Value was compared to α **0.05**, the result shows that Sig-Value was greater than α **0.05**. From the calculation, the researcher took a decision to accept H_0 . The researcher also used Critical Value which compared F statistic to F_{α} to make sure that the result would be constant. The F_{α} in this study was **4.260** and the F statistic of the interaction between teaching glossary and personality learning styles was **3.144** (Table 2). If F_{α} was compared to F statistic, the result shows that F_{α} was greater than F statistic. Therefore, the researcher accepted the H_0 and rejected H_a . Since both Sig-Value and the Critical-Value shows the same result, it can be interpreted that there is

no significant difference between students' who used online-based glossary and those who used paper-based glossary in their vocabulary mastery.

Paper-based glossary is more effective for the extroverted than introverted students toward students' vocabulary mastery.

The next (Table 3) tells that the mean of paper-based glossary for extroverted learners was **69.286**. If it is compared to the mean of introverted learners in **64.143**, it shows that the mean of paper-based glossary for extroverted learners is greater than the mean of paper-based glossary for introverted learners. So based on the hypotheses, if the mean of A_2B_2 (paper-based glossary for extroverted learners) is greater than A_2B_1 (paper-based glossary for introverted learners), H_a is accepted. It can be concluded that paper-based glossary is more effective for introverted than extroverted learners.

Table 3: Teaching glossary - personality learning styles

Dependent Variable: Vocabulary Mastery					
Teaching Glossary	Personality Learning Styles	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Paper Based Glossary	Extroverted	69.286	3.102	62.883	75.688
	Introverted	64.143	3.102	57.741	70.545
<u>Online Based Glossary</u>	<u>Extroverted</u>	<u>70.143</u>	3.102	63.741	76.545
	<u>Introverted</u>	<u>74.286</u>	3.102	67.883	80.688

Online-based glossary is more effective for the introverted students than extroverted studentstoward students' vocabulary mastery.

Table 3 shows that the mean of online-based glossary for introverted learners is 74.286 (see the underline means) and the mean of extroverted learners is 70.143. It can be identified that the mean of online-based glossary for introverted learners is greater than the mean of online-based glossary for extroverted learners. Based on the hypotheses, if the mean of A_2B_2 (online-based glossary for introverted learners) is higher than A_2B_1 (online-based glossary for extroverted learners), H_a is accepted. It can be concluded that online-based glossary is more effective for introverted than extroverted learners.

Discussion

There is no significant difference between students who used online-based glossary and those who used paper-based glossary in their vocabulary mastery.

Firstly, the initial prediction was there would be a significant difference between students who use online-based glossary and those who use paper-based glossary in their vocabulary mastery. This is supported by Taylor (2006) who found that CALL-based glossing (online-based glossary) is more effective than conventional glossing (paper-based glossary). Although not all

studies have shown significant differences between CALL-based and paper-based glossing, the statistical summary of the literature provided strong evidence that the provision of glosses in reading texts in technological contexts significantly enhances learners' efforts to acquire input in the L2.

In this study, however, the researcher's prediction was not correct. From the calculation, it was found that the Sig-Value of teaching glossary was greater than α 0.05. So, the Ho was accepted. It can be interpreted that there was no significant difference between students who used online-based glossary and those who used paper-based glossary in their vocabulary mastery.

Table 4 :Descriptive Statistics

Dependent Variable: Vocabulary Mastery				
Teaching _Glossary	Personality _Learning Styles	Mean	Std. Deviation	N
Paper Based Glossary	Extraverted	69.29	5.024	7
	Introverted	64.14	9.459	7
	Total	66.71	7.750	14
Online Based Glossary	Extraverted	70.14	10.238	7
	Introverted	74.29	7.064	7
	Total	72.21	8.719	14
Total	Extraverted	69.71	7.760	14
	Introverted	69.21	9.593	14
	Total	69.46	8.566	28

The calculation presented in Table 4 did not show the significant difference between students who used online-based glossary and those who used paper-based glossary in their vocabulary mastery; however, the total mean score shows that students who used paper-based glossary was **66.71** and online-based glossary was **72.21**. The mean score shows that there was a slight different between students who used online-based glossary and those who used paper-based glossary in their vocabulary mastery. The Table 4 proved that online-based glossary was more effective than paper-based glossary for the students in enhancing their vocabulary mastery.

This finding was supported by some previous studies on paper-based glossary. For example, Hulstijn, Hollander, and Greidanus (1996) conducted a series of studies to explore the effects of multiple-choice glosses on vocabulary acquisition, but the conclusions were different. He reported that there was no difference between multiple-choice gloss group and control group. Similarly, Jacobs et al. (1994) state that their study revealed that no significant difference was reported between L1 gloss and L2 gloss even though the vocabulary learning was enhanced in immediate post-test, but not in delayed post-test.

Watanabe (1997) who conducted research on the effects of glossing on incidental vocabulary learning also states that the results of the comprehension question analysis revealed that the marginal gloss group had a significantly better performance than the no-gloss group, but no significant difference was reported between the two other gloss groups. In another study, Yoshii (2006) compared the effects of L1 gloss and L2 gloss on incidental vocabulary learning.

He reported that there was no significant difference between L1 and L2 glosses at immediate and delayed posttests.

Poole (as cited in Azhari, 2012) reported almost similar results with this study. His research objective was to investigate, whether the use of concordance-based (meaning-inferred) or dictionary-based (meaning-given) glosses could improve the participants' receptive/productive vocabulary knowledge, but in his study he found that the mean score increased; however, the results of the one-way ANOVA revealed that there was no significant difference between the performances of different groups.

As mention earlier, all researchers have the same finding in implementing teaching glossary which supported the findings in this study. There are some possible reasons why there was no significant difference between students taught by using paper-based and online-based glossary.

The researcher assumed that it happened because the students were taught by using both teaching glossary maximally and by following the procedures of teaching glossaries. The comfortable situation of teaching and learning which was supported by facilities became supporting factors. As a result the students' motivation in learning increased. When the researcher gave them the posttest, they could answer it well. It agrees with Lenders (2008) who states that successful language learners consistently show two crucial qualities: positive attitudes (toward the language, the setting, the input, the teacher, etc.) and high motivation to learn the target language. Findings of this study support Lenders' idea since this study proves that if teaching method is applied maximally by the teacher, the students will be eager in learning no matter what teaching method is used.

Lenders' statement is also supported also by Moon (2000) who says, "Two of most important reason for the pupils' liking English appears to be *teacher* and *teaching method*" (p.14). The teacher who has positive attitude will influence his performance in teaching. It is in line with the theory from the previous chapter by Lender who says that the successful language learners come from the positive attitude of the teacher. If the teacher has positive attitude to his students in teaching, the students' desire and motivation in learning English will increase even though they have different personality type. Another factor why students like English comes from the teaching method which is used by the teacher. Ideally, no matter what teaching method the teacher uses, as long as the teacher follows the right procedure and based on the students' need, the result will be positive. By doing so, the teacher can encourage the students' eagerness in learning English.

As a conclusion, the results of this study show that there was no significant difference between students who used online-based glossary and those who use paper-based glossary in their vocabulary mastery. This study also supports the previous studies showing the same results.

Paper-based glossary is more effective for extroverted than introverted students toward students' vocabulary mastery.

The research findings revealed that teaching glossary contributes to the improvement of students'

vocabulary mastery. According to the students' scores of vocabulary testing, the extroverted students indicated that their vocabulary size increased since treated using paper-based glossary. It can be seen from Table 3 in which the mean score of the extroverted students was greater than the introverted students in paper-based glossary.

During the treatment of teaching glossary, the extroverted students looked more active than the introverted students in using paper-based glossary than the online-based glossary. In the procedure of teaching of paper-based glossary, the researcher provided them discussion activities to discuss the texts with their friends in the group. In this activity, the students were allowed to discuss the text with their friends or not. So, from this activity, the researcher could see the different learning activity chosen by the different personality learning styles. The extroverted students chose to discuss with their friends while the introverted did not. It relates to the theory of personality learning styles theory.

As mentioned, the extroverted learners are interested in concrete experience, interact with people outside their learning circle and cultivate relationship with others, so it will be appropriate if they use the paper-based glossary. In the paper-based glossary, the students may bring their paper and discusses it with their friends. By doing this, the extroverted students will enjoy the teaching and learning process as they can bring easily the printed materials to be read and discussed with their friends. It can therefore be assumed that by doing this constantly, the students' vocabulary mastery could increase significantly.

On the contrary if the extroverted students are given the online-based glossary which requires the students to work individually and focus on reading on the screen, it will only limit the creativity of the extroverted students. Online-based glossary is not enough to stimulate them.

In conclusion, the paper-based glossary could give better impact on extroverted students' vocabulary mastery than the online-based glossary. This is because the extraverted students tend to be active and have a good relationship in social life, stronger mental, confidence and will try to communicate and respond to the message or information that is sent by interactive way, rather than by the paper-based glossary.

Online-based glossary is more effective for the introverted students than extroverted studentstoward students' vocabulary mastery.

For the introverted students, the online-based glossary will be more suitable. The researcher's initial assumption that the introverted students will get more benefit if they use online-based glossary rather than paper-based glossary since online-based glossary provides private and independent learning environment was true. From the descriptive statistic, it could be seen that the mean score of the introverted students who used online-based glossary was greater than the extroverted students on their vocabulary mastery (see Table 3). It means that online-based glossary was more effective for introverted student than extroverted in their vocabulary mastery. This may be because introverted students tend to be inactive in social life, quiet, thoughtful, and more sensitive, so they might have competence to read and analyze the message or information.

It is likely that the language learning styles are influenced not only from the personality

but also by the learners' age, cultural backgrounds, as well as the language learning contexts or circumstances (Dornyei, 2005). Therefore, further empirical exploration of other variables, aside from the ones used in the present study, could be conducted in learning English and longitudinal study may be employed to explore how students enhance vocabulary mastery through glossary.

CONCLUSIONS

The findings of this study show at least three points. First, this research shows that there was no significant difference between students who used online-based glossary and those who used paper-based glossary in their vocabulary mastery. Second, the assumption that the paper-based glossary is more effective for extroverted students on vocabulary learning styles has been proved. It can be seen from the mean score of the extroverted students that was greater than the introverted students in paper-based glossary. Third, the findings show that the online-based glossary with its all advantages is more effective to the introverted students.

However, the results of this study should be interpreted with caution. There are some points with regard to this. First, the instrument used in the present study was the questionnaire using a Likert scale. It was likely that there was an underlying answer which might affect validity of the results since in judging the extroverted or introverted students, the researcher used the questionnaire only. As the result, the researcher only knew the tendency of the students whether they belong to extroverted or introverted, not pure extroverted or introverted person. Second, the sample of this research was small, so there is need for further studies on language learning styles at all levels using greater sample sizes to verify the results of this study.

REFERENCES

- Azhari, F. (2012). Review of effects of textual glosses on incidental vocabulary learning. *International Journal of Innovative Ideas (IJII)*, 12(2), pp. 13-24. Retrieved March 4, 2014 from <http://www.publishtopublic.com/img/upload/2037/documents/10195.pdf>.
- Berecz, J. M. (2008). *Theories of personality: Azonal perspective*, USA: Pearson Education.
- Carver, C. S., & Scheier, M. F. (2008). *Perspective on personality*, USA: Pearson Education
- Dornyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum.
- Gorder, P. F. (2001). *Students learn better from web pages that contain print "cues"*. Retrieved February 12, 2014 from www.osu.edu/researchnews/achieve/weblearn.htm.
- Heyne, F. (2009). *The iPersonic personality test*. Retrieved February 4, 2015 from <http://www.ipersonic.com/test.html>
- Hjelle, L. A., & Ziegler, D. J. (1992). *Personality theory*. USA: McGraw Hill
- Hong, X. (2010). Review of effects of glosses on incidental vocabulary learning and reading comprehension. *Chinese Journal of Applied Linguistic*, 33(1),56-73. Retrieved February 5, 2015 from <http://www.celea.org.cn/teic/89/10042204.pdf>
- Hulstijn, J. H., Hollander, M., & Greidanus, T. (1996). Incidental vocabulary learning by advanced foreign language students: The influence of marginal glosses, dictionary use, and

- reoccurrence of unknown words. *The Modern Language Journal*, 80(3), 327-339.
- Jacobs, G. M., Dufon, P., & Fong, C. H. (1994). L1 and L2 vocabulary glossing L2 reading passages: Their effectiveness for increasing comprehension and vocabulary knowledge. *Journal of Research in Reading*, 17(1), 19-28.
- Ko, M. H. (2005). Glosses, comprehension, and strategy use. *Reading in a Foreign Language*, 17(2). Retrieved March 15, 2014, from <http://nflrc.hawaii.edu/rfl/October2005/ko/ko.html>
- Lenders, O. (2008). Electronic glossing – is it worth the effort? *Computer Assisted Language Learning*. 21(5), 457–481.
- Lomicka, L. L. (1998). To gloss or not to gloss: An investigation of reading comprehension online. *Language Learning & Technology*, 1(2), 41-50.
- Moody, R. (1988). *Personality preferences and foreign language learning*. 72 (4):389.
- Moon, J. (2000). *Children learning English*. Oxford: Macmillan Publishers Ltd.
- Pervine, L. A. Cervone, D., & John, O. P. (2010). *Psikologi kepribadian: Teori penelitian*. Jakarta: Kencana.
- Pishadam, R., & Ghahari, S. (2011). The impact of glossing on incidental vocabulary learning: A comparative study. *The Iranian EFL Journal*, 7(6), 8-29.
- Roby, W. B. (1998). What's in a gloss? *Language Learning & Technology*, 2(2), 94-101.
- Taylor, A. M. (2006). The effects of CALL versus traditional L1 glosses on L2 reading comprehension. *CALICO Journal*, 23(2), 1-10.
- Watanabe, Y. (1997). Input, intake, and retention: Effects of increased processing on incidental learning of foreign language vocabulary. *Studies in Second Language Acquisition*, 19(3), 287-307.
- Yanguas, I. (2009). Multimedia glosses and their effect on L2 text comprehension and vocabulary learning. *Language, Learning & Technology*, 13(2), 48-67.
- Yoshii, M. (2006). L1 and L2 glosses: Their effects on incidental vocabulary learning. *Language Learning & Technology*, 10(3), 85–101.

