

ABSTRACT

It has been widely recognized that learning and developing meaning of new words is dependent on the nature of linguistic input, memory, cognitive abilities as well as phonological, morphological and syntactic links formed by the learner. The interrelationship between language use and the construction of meaning of words is fundamental to language learning and language development. Reading comprehension tasks insufficient to promote the development of new vocabulary, as using complex cognitive processes need to be used in the development of new words. This paper demonstrates the use of verbalization of thought through think-aloud while engaging in language based tasks such as in reading comprehension as a way to encourage awareness of language cognitive processes, promote increased attention on meaning (micro and macro) and enhance the level of awareness which lead to these activities when given proper guidance may result in deeper processing and induce reactivity effect on the development of new vocabulary through reading. Through a deep review of literature on leaning and development of vocabulary based on the involvement load hypothesis. The paper proposes a particular focus on the issue related to the three components of the involvement load hypothesis (*need, search, and evaluation*) such as reading comprehension task that have related to the learning and development of vocabulary which have attracted the most attention in the issue of reactivity of think aloud on vocabulary development.

Key Words: vocabulary development, involvement load hypothesis, reading task, think-aloud, reactivity

TASK INDUCED INVOLVEMENT: THE ISSUE OF REACTIVITY ON THE DEVELOPMENT OF VOCABULARY: A REVIEW PAPER

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1.1 INTRODUCTION

Research in first language (L1) and second language (L2) in psychology and cognitive process believed that most of vocabulary knowledge is acquired incidentally in the sense as a natural by-product of learners performing linguistics activities and tasks or when learners' attention are focused on an on-going task such as reading tasks other than word learning itself (Paribakht, and Wesche, 1999).

Reading comprehension is expected to play a crucial role and the most common task to expand L1 and L2 learners' vocabulary knowledge (Anderson *et al.*, 1988; Nagy, 1988). SLA Research supposes the fundamental role of reading in vocabulary learning (Krashen, 1989; Hulstijn, 1992; Hulstijn et al., 1996; Ellis, 1997; Gass, 1999, Swanborn and De-Glopper, 2002). Reading is considered the significant source for the acquisition of vocabulary in L2/FL context (Ponniah, 2011; Naser and Amir, 2010).

However, not all studies in the same boat with respect to whether more of L2 and FL lexical knowledge and word meaning could be learnt incidentally via reading (Mohammad and Mousa, 2014). Reading as input task is insufficient to pick up the meaning of the new vocabulary (Laufer and Hill, 2000). Complex cognitive processes, which involve at least mental effort of considering the semantic aspects of a word, need to be used in learning and developing the meaning of new words. The involvement load hypothesis of Laufer and Hulstijn (2001) propose that indirect task which motivate the learners' attention to explore, search, and estimate the meaning of new words may lead to better learning the meaning of new vocabulary.

The question arises of whether all language tasks, specifically reading comprehension tasks which have higher degree of involvement load in deep processing of lexical information lead to better learning of vocabulary incidentally, even the task is input or output. Research in SLA need to be investigate whether performing of think aloud as additional input task while engaging in reading comprehension task induce higher degree of involvement load; arise learners' awareness to be aware of their own learning when given proper guidance may result in deep processing and changes their cognitive process, induce *reactivity* may effect on vocabulary development.

The paper proposes a particular focus on issues in the realm of L2 learning vocabulary via reading comprehension task; focusing on issues related to the three components of the involvement load hypothesis (*need, search, and evaluation*) such as reading comprehension task and level of awareness which have attracted the most attention in the issue of reactivity on vocabulary development.

1.2 INCIDENTAL VOCABULARY LEARNING AND TASK OF VOCABULARY LEARNING

The conviction that much second language vocabulary learning occurs incidentally while the learner is engaged in reading process has been held by numerous researchers involved in the study of the relationship between reading and vocabulary (Paribakht & Wesche, 1997). However, incidental vocabulary learning through reading could not always be considered as effective particularly for ESL/EFL learners (Laufer, 2001). Frequently, L2 vocabulary obtained from reading are approximately limited and not necessarily efficient (Hulstijn, 1992). Such limited achievements of words learned just by reading could be related to different issues: the first ones can be attributed to lack of processing; incidental vocabulary learning failed to create a memory trace for each word through reading. The second and the major is attributed to the lack of noticing. According to Schmidt (1995), conscious attention is fundamental for learning to occur, and noticing is generally the first stage of learning. However, it is highly possible that learners usually fail to notice the unfamiliar words when they engaged in reading process; particularly, they can comprehend and construct the meaning of the message without knowing those words.

One way to view vocabulary learning is to see it as a process of related sub-tasks. When learners encounter unfamiliar word, they may guess its meaning and usage from available clues. Evidence suggests more systematic approaches are needed in learning vocabulary rather than leaving learners to acquire vocabulary incidentally through reading (Nation, 2001; Schmitt, 2008). Various methods of elaborative processing may help learners to consolidate specific target words (Nation, 2001). Most learners might proceed to look up the meaning of the new words in the dictionary. Others might take down notes along the margins, between the lines, or on separate vocabulary notebooks. Some would even try to apply the word actively. Each of these task stages demands metacognitive judgment, choice, and arrangement of cognitive strategies for vocabulary learning. Therefore, each strategy that a learner uses will determine largely how and how

well a new word is learned (Mohammad and Mosa, 2014). As Laufer and Hulstijn, 2001; Rott, 2005; Kim, 2008; Sayyed et al., 2011; Ayman, 2012, contend the usefulness of various method and different tasks to support incidental learning vocabulary and development via reading comprehension.

1.3 INVOLVEMENT LOAD HYPOTHESIS AND TASK INDUCED INVOLVEMENT

Laufer and Hulstijn (2001) proposed the notion of the involvement as an operationalization for the construct of depth of processing in SLA. Involvement Load Hypothesis based on the notion that incidental task which induce higher involvement is conducive to the type of processing that is deemed crucial for vocabulary retention. The notion of involvement includes three task-specific components: a motivational component, '*need*', and two cognitive components, '*search*' and '*evaluation*'

Most scholars seem to agree that incidental vocabulary learning environment, with high input task is more effective than a low-input tasks regardless of receptive vocabulary knowledge, or the acquisition of productive vocabulary knowledge (Laufer and Hulstijn, 2001; Kim, 2008; Keating, 2008; Sayyed, *et al.*, 2011; Zargham, *et al.*, 2012. However, not all studies have validated the involvement load hypothesis. Contrary to Laufer and Hulstijn (2001), Martínez-Fernández (2008) and Yaqubi, *et al.*, (2010) paint a different picture to the notion of the involvement load hypothesis. They found that in intentional learning conditions of reading task, fill-in-blanks and writing a composition tasks triggered better learning of vocabulary than multiple-choice question, even though fill-in-blanks task has lower degree of involvement load.

A question arises of whether type of task either input or output has a crucial role for the best learning of vocabulary or the motivational and cognitive components may contribute to better learning of vocabulary. Involvement load hypothesis is standing on task which lead to higher degree of motivational and cognitive

components (*need*, *search*, and *evaluation*) correspondingly induce better learning and retention of recalling word meaning of unfamiliar words, even the task either input or output.

Yaqubi, *et al.*, (2010) and Martínez-Fernández (2008) revealed that output-oriented tasks are more conducive to learning and developing of vocabulary than input-oriented tasks and they are compatible parallel with the output hypothesis in SLA (Swain,2000), according to which language production facilitates learning through provision of extra input and development of awareness.

In a comprehensive review of research on the involvement load hypothesis, the *evaluation* cognitive components of a learner's involvement in processing words play a significant part to be more effective than other components. The component of *evaluation* has two degrees of prominence based on the involvement load hypothesis (Laufer and Hulstijn, 2001): moderate and strong. When *evaluation* requires the use of a new word within a given sentence it is moderate, but when the learners are required to produce an original sentence, evaluation is strong because learners should judge how to combine words and produce a sentence. The *evaluation* components make the learners to engage in deep processing of memory performance that may lead to induce higher awareness and lead to think, analyze, compare, infer, and act or produce the word and write connect discourse which demand deeper cognitive effort and contribute to the better learning of vocabulary and word meaning.

A question of whether higher degree of involvement in cognitive components (*search* and *evaluation*) and motivational components (*need*) may lead the learners to pay attention to higher level of awareness in deep processing, promote them to develop the meaning of new vocabulary when engaging in reading task. In fact, when encountering unfamiliar words in L2 or FL text, the language learner can do one of the two things. Learner can either ignore the unknown words (i.e. avoidance strategy), or may attempt to infer its meaning, using linguistic and non-linguistic resources available in or outside the text.

According to Laufer and Hulstijn's (2001) involvement load hypothesis, incidental vocabulary learning is dependent upon the motivational variable of 'need'; words that are significant for comprehending L2 text are more likely to be learnt and accessed for longer time periods.

The motivational component 'need' listed by Laufer and Hulstijn can predict whether the language learner decides to ignore the word or to guess its meaning, a proposition which has implicitly mentioned by Laufer and Hulstijn: if the learner is reading a text and unknown words is necessary for comprehension, s/he will experience the need to understand it.

The learner has decided to embark on inferring the meaning of an unknown word. The *need*, *search*, and *evaluation* components in reading task guide the learner to use some strategies to know the meaning of unfamiliar word and comprehend the meaning of the text. Such strategies, either cognitive or metacognitive strategies, may be more effective in inducing high level of awareness to learn and develop new vocabulary.

In fact, learners have to think while they are engaged in completing certain language tasks (reading comprehension task). Thus, using some strategies may stimulate learners' thoughts and thinking process, help them to construct the meaning of the text. Such strategies might lead the students to involve in deep processing, induce higher level of awareness, attention, which increases the learners' cognitive load, and eventually reflect on their final performance (Jourdenais, 2001).

Using model of think aloud as a method to enhance awareness of language cognitive process, promote increased attention on meaning by thinking, analyzing, reflecting their prior thoughts; induced changes of learning process, called *reactivity*, of reading processing which lead to raise of new questions that lead to change the original purpose of the cognitive process (Snow, 2002).

1.4 THINK ALOUD PROTOCOL AND THE ISSUE OF REACTIVITY

SLA research report the useful methodological tool of think aloud to examine L2 students' cognitive processes and to operationalize awareness in second language learning and second language learners' cognitive processes while they interacted with second language task (Sachs and Suh, 2007; Leow and Morgan-Short, 2004; Leow, 2006; Rott, 2005; Leow et al., 2008; Martinez- Fernandez,2008).

Although think-aloud protocols have proved to be a successful tool to operationlize awareness, their potential reactivity might affect learners' performance in some cases. SLA research has found negative reactivity and reactivity on time on task but not on learners' performance (Leow and Morgan-Short, 2004; Bowles and Leow, 2005; Yoshida, 2008; Bowles, 2008; Goo, 2010). However, so far a limited research in SLA has addressed the issue of reactivity effect on vocabulary development when learners engaged in reading comprehension task based on the Involvement Load Hypothesis in relation to the type of reading task and level of awareness.

The issue of reactivity may play a significant role to improve the notion of the involvement load hypothesis (Laufer and Hulstijn, 2001) in cognitive components (*search* and *evaluation*). When performing of verbal report of think aloud while engaging in reading task might create extra learning opportunities, promote increased attention, and lead to deeper processing (Jourdenais, 2001). Verbal report of think aloud may enhance the development of vocabulary through giving learners the opportunity to reflect their insights and try to improve strategy via using metacognitive strategies through metalinguistic awareness or generate a new once in order to know the meaning of new words to understand reading text.

Such types of strategies may play an essential role to change the primary cognitive process in order to learn the meaning of new vocabulary when learners encounter new vocabulary and this new vocabulary is needed to construct the meaning of the passage and

eventually complete the reading comprehension task.

CONCLUSION

This paper present a review of research on incidental vocabulary learning via reading comprehension task based on the involvement load hypothesis (Laufer and Hulstijn, 2001). It was indicated that stable conclusions cannot be made from studied that have been carried out so far since there have been many disagreements findings regarding the issues that surrounded the involvement load hypothesis. Therefore, many more need to investigate to improve the issues on the realm vocabulary development of involvement load hypothesis. The paper lies its ability to raise the significance of performing thinking aloud as an additional input task while the students engaged in reading comprehension tasks to arise learners' attention to be aware of their own learning and address the issue of reactivity and its role effect on the development of vocabulary.

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