Density of visual input enhancement and grammar learning
A research proposal

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Abstract

Research in the field of second language acquisition (SLA) has been done to ascertain the effectiveness of visual input enhancement (VIE) on grammar learning. However, one issue remains unexplored: the effects of VIE density on grammar learning. This paper presents a research proposal to investigate the effects of the density of VIE on English grammar learning. An introduction to the issues to be discussed is first presented. Next, a brief review of the current literature related to the topic to be investigated is mentioned. Other essential components of a research proposal which include the research questions, the subjects of the study, the procedures, and the methods used to analyze the data are respectively delineated. Finally, the potential contributions of the present study are indicated. First, the English grammatical structure to be visually enhanced and examined empirically in this study has probably not been looked at in previous research. Second, the questionnaire used to elicit learners' perceptions and reactions about the use of VIE in reading texts also appears to be a new perspective on researching VIE and grammar learning.

1. Introduction

The role of grammar and grammar learning as well as teaching has been the central issue in the history of language teaching and learning. Although grammar may not be the magical thing that enables one to use a foreign or second language, it does significantly make it easier for learners to express themselves clearly and accurately. Approaches to teaching grammar vary according to the methods and activities or tasks employed by the teachers in the classroom. Recently, in the literature of second language acquisition some researchers have made use of visual input enhancement (VIE) as a way to see if VIE can help learners learn the target grammar points better. The results seem inconclusive and VIE has been found to have little effects on learners' grammar learning (Lee and Huang, 2008). In their review of research on the effectiveness of VIE, no research has been reported to compare the density of VIE. In other words, it could be interesting to find out if there are significant differences in learning grammar features between a text with a high level of density of VIE (a lot of VIE) and the same text with a lower level of density of VIE (fewer VIE). The results of this study may shed some light on the issue of the amount of VIE embedded in reading texts and grammar learning.

2. Review of Literature

Smith (1981) seems to be the first to propose typological enhancement but it was not investigated until 1988 when Doughty did her doctoral dissertation. Doughty (1988) saw typological enhancement as a kind of "visual equivalent of stress and emphasis" (pp. 87-88) in oral input. Likewise, Izumi (2002) considered visual input enhancement as an external-attention drawing technique. In a similar vein, White (1998) noted that typological enhancement involves

the manipulation of italics, bolding, enlargement, and underlining and it is believed to direct learners' attention to the target forms more explicitly than input flood but less explicitly than rule explanation. In their meta-analytic review of visual input enhancement and grammar learning, Lee and Huang (2008) delineated that VIE is a way to make input more perceptible to second language learners by using enhancement techniques with typographical cues such as underlining, boldfacing, italicization, capitalization, color coding or using different font sizes or types. They also added that the belief that VIE facilitates the processing of the targeted form is built on the noticing hypothesis proposed by Smith (1981) in which input needs to be noticed first to be processed for acquisition by second language learners and using VIE makes input more likely to be noticed and thus remembered. In addition, Schmidt (1990) proposed that second language learning cannot happen if learners do not notice the second language forms.

After almost thirty years since Smith (1981) first proposed the noticing hypothesis, Lee and Huang (2008) did a comprehensive review of research studies that examined the impact of VIE on learners' grammar learning and meaning comprehension. In their review, the issues of the effectiveness of VIE on grammar learning and meaning comprehension have been widely studied by researchers such as Doughty (1991), Alanen (1995), Jourdenais et al. (1995), Leow (1997, 2001), Leow et al. (2003), Jourdenais (1998), White (1998), Overstreet (1998, 2002), Kobota (2000), Izumi (2002), Wong (2003), Ha (2005), Lee (2007), and Shook (1994). While some studies found comparatively positive effects of VIE over input flood (Lee, 2007; White, 1998), as Lee and Huang pointed out, other studies failed to find such effects (Izumi, 2002, 2003; Jourdenais, 1998). They further pointed out that only five out of sixteen studies included in the sample for review had English as their target second language (31%). This seems to be a very small amount of studies, so it is imperative to conduct more research studies to examine the

effects of VIE on grammar learning in English as specific grammatical points and structures may yield different results. Only a limited number of English grammar points have been empirically investigated in research on the effects of VIE. For example, Doughty (1991) used relativization as a target to be enhanced visually; Ha (2005) used determiners; Izumi (2002) used relative clauses; Lee (2007) used passive voice; and White (1998) used third person singular possessive determiners. Compared to the number of grammatical points and structures found in English, the studies mentioned above have just looked at a very limited number of structures that need to be empirically researched.

As noted by Lee and Huang (2008), the most widely employed VIE cues were boldfacing and underlining. Most studies used bolding or boldfacing (e.g. Shook, 1994; Wong, 2003; Leow, 1997). Shook (1994) used bold, uppercase letters as VIE to see if foreign and second language learner readers can process grammatical information presented via written input as intake. It was found that only when foreign and second language learners have their attention explicitly directed to the grammar item will they process them as intake and the input for more meaningful structures are processed before less meaningful ones. Unlike Shook, Wong (2003) used more visual cues (enlargement, bolding, and italicization). Wong investigated how textual enhancement as a form of input enhancement and increasing comprehensibility of input via simplified input could impact adult second language learners of French in their acquisition of the past participle agreement in relative clauses and their comprehension of texts where targeted forms were embedded. Wong found that textual enhancement and simplified input did not help learners to acquire the targeted forms. Nonetheless, textual enhancement was found to help recall of the enhanced information in the texts. Leow (1997) examined the effects of written input enhancement and text length on comprehension and intake of the target forms in the input.

Targeted forms were bolded and underlined. Leow found no significant main effect for input enhancement on comprehension and intake.

    At least two of the studies (Leow, 2001; Leow, Egi, Nuevo, & Tsai, 2003) on VIE attempted to collect qualitative data by employing think-aloud protocols to elicit data from the learners when they were reading the texts. Leow (2001) failed to find significant benefits of written input enhancement (omitting secondary information, underlining all verb forms, and bolding only verb ending, e.g. Hag**a** y pong**a**) over unenhanced written input for the amount of reported noticing, readers' comprehension, and readers' intake. Leow et al. (2003) confirmed the results found in Leow (2001). In their analytic review of VIE and grammar learning, Lee and Huang (2008) claimed that research on VIE is still a young area of study, so there seems to be a great need to do more studies to empirically investigate the impacts that VIE may have on grammar learning especially in English. Therefore, my research study will use unreal/hypothetical conditionals (e.g. If I had a lot of money, I would travel the world) as a target form to be enhanced visually because, to my best knowledge, this grammar point has not been chosen as a targeted form to be enhanced visually. Moreover, whereas VIE has generally been compared to the more implicit technique of input flood which is the provision of as many instances of the target second language form in the input as possible (Lee and Huang, 2008), my research study set out to find out if there are different effects between two types of reading texts, one with a high level of VIE density and another with a lower level of VIE density.

3. The Methodology

A. Research questions

Whereas the studies reviewed by Lee and Huang (2008) have addressed many problems concerning the learning effects of VIE, none has specifically been designed to investigate the effects of VIE density on grammar learning. Therefore, this research study aims to examine the effects of the density of VIE on grammar learning. The research questions of the study are as follows.

1. Are there significant differences in uptake between students who read a text with a high level of VIE density and those who read the same text with a lower level of VIE density when the number of target forms are held constant?

2. What are learners' perceptions and reactions about the usefulness of VIE in the two types of texts they read?

B. The subjects

As reported by Lee and Huang (2008), more than half of the studies reviewed involved intermediate learners as these learners seemed to be appropriate for studies on VIE. They also noted that while beginner learners may not have enough linguistic knowledge and reading skills to notice VIE, advanced learners have had too much exposure with the target structures under investigation, which may affect the effectiveness of VIE. As a result, intermediate learners are likely to be suitable for the present study. As Lee and Huang noticed, the majority of subjects in the studies they reviewed were EFL students, so there seems to be a need to conduct more research studies to investigate ESL students. The subjects of this proposed study will be 60 intermediate ESL students in San Diego, CA (30 for one experimental group and 30 for another

group). Like many research studies reviewed in the sample collected by Lee and Huang, the subjects in this studies are also going to be chosen based on institutional classification of their proficiency level in English.

C. The Instruments and apparatuses

The instruments used in this study will comprise of a reading text with two versions, one with more VIE and another with less VIE on one target grammar point which is hypothetical/unreal conditionals , a pre-test , a post-test, and a survey questionnaire. The reading text will provide flood input of hypothetical/unreal conditionals (e.g. If I had a lot of money, I would travel the world). In one version of the text, there is a high level of VIE density, which means all instances of the targeted form are visually enhanced and another version will have fewer VIE, which means that only half of the number of the targeted form are visually enhanced. To visually enhance the text, the targeted form is enlarged, bolded and underlined. The two tests (pre-test and post-test) will be pilot tested on students with similar proficiency level to rule out the possibility that the pre-test can be easier or more difficult that the post-test. After reading and completing the post test, the subjects will be asked to do a survey questionnaire to express their perceptions and reactions about the use of VIE in the readings they have done. The data obtained from the questionnaire may reveal students' perspectives about the usefulness of VIE in their grammar learning.

D. The procedures

Subjects will first be selected based on institutional classification of their proficiency level in English. They will then do a pre-test. After the test, each group of students will be reading the assigned text version for their treatment for no more than thirty minutes as the text is fairly short.

This is a one session treatment that have been commonly used for research on VIE (Jourdenais et al., 1995; Leow, 1997; Leow, 2001; Leow et al., 2003; Overstreet, 1998, 2002). An immediate post-test will be conducted as soon as the subjects finished the reading and, finally, the questionnaire is administered.

E. The data analysis

Inferential statistical analysis will be done to find out if there are significant differences in uptake between students who read a text with a high level of VIE density and those who read the same text with a lower level of VIE density when the number of target forms are held constant. The data collected from the questionnaire will be used to answer the second research question which is the learners' perceptions and reactions about the usefulness of VIE in the two types of texts they read.

4. Conclusion

This research is different from earlier studies in two main points. First, the target form, hypothetical/unreal conditionals, is likely to be used for the first time to be visually enhanced in the present study. As there are numerous structures used in English, it is necessary to empirically investigate to see if individual structures may lend themselves more to be easily acquired through VIE. Besides, the structure chosen is also complicated. It may be interesting to find out VIE can aid learners in acquiring the structure. Second, the questionnaire employed to elicit learners' perceptions and reactions about the use of VIE in reading texts also appears to be a new perspective on examining research on VIE. This is an extremely important aspect that current research seems to fail to address as students are major and central subjects of the process of language teaching and learning and most research in second language acquisition appears to find

out ways to help them achieve optimal learning results and outcomes. Failing to explore and know what these key players think and believe may be a lack in the literature and what researchers have tried to experiment and investigate may have little value if the learners turn out to have negative feelings or preferences about the use of VIE as they may consider such visual cues as a distraction or an irritation that may block or slow their reading process down. All what has been mentioned is just speculative and needs to be confirmed or rejected after the study has been carried out. Therefore, this research study may partially contribute to a better understanding about VIE and grammar learning both in quantitative and qualitative senses. The results of the study may inform researchers and teachers if the density of VIE in reading texts has significant effects on students' grammar learning for the particular structure chosen in the study. Also, the results from the questionnaire may shed light on how VIE is perceived by the learners themselves. Their perceptions can be an indicator for researchers to know if the learners like VIE or not. Hypothetically, if the students find VIE an irritating distractor for them while reading, the question likely to be asked is if VIE should be continued to be researched or not. On the other hand, if they find VIE useful for them to easily notice the targeted form, such feeling is enough for the inclusion of VIE in reading texts as learners themselves want it regardless of the results from empirical studies. As researchers have generally agreed on the role of affective factor in language learning, the role of affective factor should also be noticed in research on VIE.

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