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Author(s)	Liu, Michelle
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The Effects of Simultaneously Presented Multimedia Supports on EFL Learners' Reading Anxiety in an EMI Course

Michelle LIU

Abstract: Universities within English as a Foreign Language (EFL) context began introducing English as a Medium of Instruction (EMI) courses into their curriculums, hoping to facilitate global academic exchange (Montgomery, 2004) due to the wave of the internationalization of educational programs. With the changes in the medium of instruction and the materials used in EMI courses, EFL learners' existing reading anxiety may be exacerbated. Since learners' reading anxiety is not widely explored within the context of EMI classrooms, this study aims to uncover the effects of simultaneously presented reading supports on EFL learners' reading anxiety in an EMI marketing course, hopefully to provide effective learning and reading strategies to alleviate such anxiety. Freshman-year marketing students are selected as the participants for this study, and only those with pre-existing reading anxiety will proceed to the reading task. The chosen participants are then required to read through the given passage, in which will be accompanied with its' corresponding multimedia glosses. An immediate interview will be conducted soon after the reading task to elicit learners' responses. From this preliminary study, it is expected that the multimedia supports will reduce learners' reading anxiety and learners' learning purpose is hoped to be observed as well.

Introduction

Other than the numerous economic and societal impacts that globalization has facilitated over the decades, the educational systems around the globe has been indirectly impacted as well, which results in the internationalization of educational programs in various institutions. With the continual power status of the English language in the academia, universities within English as a Foreign Language (EFL) context have slowly introduced and employed English as a Medium of Instruction (EMI) into their curriculums, in hope to keep up with global demands and enhance students' global competitiveness (Chen & Tsai, 2012), since knowledge are now obtained in an internationally used language (Tatzl, 2011). It is without a doubt that EMI plays an imperative role in shaping current and future students into "glocalized" members of this society, and helps to overcome the existing language barriers between instructors and students from another country of origin, due to the diverse student body that is brought by the internationalization of educational institutions. Thus, English now serves as a bridge, a lingua franca between these parties and helps to make global academic exchange possible (Montgomery, 2004).

With the aim of transforming itself into a "hub" for international education and improving students' English ability, Taiwanese Ministry of Education has been promoting EMI in higher education institutes through various programs, such as Aim for the Top University and Teaching Excellence. Thus, EMI courses are now prevalent in university curriculums, ranging from soft science majors to hard science majors. However, the majority of the studies conducted in the context of EMI investigate the stakeholders' attitudes towards the mode of instructions (Tsui

& Ngo, 2016; Tatzl, 2011; Huang, 2015; Huang, 2009), instead of how the English-medium materials used in these courses may affect EFL learners' learning process. With the significant changes in the medium of instruction as well as the materials used in these courses, this drastic transformation may exacerbate EFL learners' existing foreign language learning anxiety, more specifically reading anxiety.

Foreign language learning anxiety is a commonly seen phenomenon in which learners from different age group, cultures, or native languages experience in foreign language classroom settings. It is also "a psychological factor that may crucially affect student performance" (Bekleyen, 2009, p. 664). Foreign language learning anxiety can then further be dissected into four skill-specific anxiety, which are reading, listening, speaking, and writing anxiety respectively. Most of the existing literatures that study learners' reading anxiety mainly took place in first language (L1) or second language (L2) classrooms (Zhao, Dynia & Guo, 2013), very rarely in EMI content area classrooms. Also, EMI content area classrooms often times do not provide EFL learners adequate reading strategies or multimedia supports, which is widely seen in language learning e-books (Liu, 2015; Türk & Erçetin, 2012; Liu, Liu & Chen, 2019; Yanguas, 2009), to cope with the reading anxiety learners may encounter. It is due to this scarcity that prompted the development of this current study.

By having reading anxiety as the one of focal points of this study, which is rarely discussed in EMI content area classrooms, this study aims to uncover the effects of simultaneously presented reading supports on EFL learners' reading anxiety in an EMI course, hopefully to provide effective and efficient strategies to alleviate the reading anxiety learners experience in content area classrooms. The followings are the research questions proposed for this research:

1. Does EMI course instructor provide enough reading supports in the reading materials to alleviate learners' reading anxiety? If not, does it increase learners' reading anxiety?
2. In what way do the multimedia supports reduce learners' reading anxiety?

Literature Review

Foreign Language Learning Anxiety and Reading Anxiety

Over the years, the notion of anxiety in foreign language learning contexts, which can be defined as "a distinct complex set of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (Horwitz, Horwitz & Cope, 1986, p. 128), has proven to be a crucial individual difference in language learning (Matsuda & Gobel, 2004). Learners have repeatedly stated that they experience more anxiety in foreign language classes than other classes (Horwitz et al., 1986). Hence, the construct of foreign language anxiety (FLA), described by MacIntyre and Gardner (1994), is "the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening and learning" (p. 284), and it interferes with the "acquisition, retention, and production of the new language" (MacIntyre & Gardner, 1991, p. 86).

In turn, the Foreign Language Classroom Anxiety Scale (FLCAS) was then developed by Horwitz (1986) to investigate anxiety, social comparisons, avoidance behaviors, and psychophysiological symptoms in the foreign language classroom setting. This 33-item questionnaire measures communication apprehension, fear of negative evaluation, anxiety in foreign language classes, and test anxiety (Al-Saraj, 2014). The FLCAS offers specific situations and asks respondents to verify how they feel about these situations on a 5-point Likert scale from strongly disagree to strongly agree. The original FLCAS was written in English, but has since been translated into numerous languages and successfully adapted for use with students around the world (Akbari & Sadeghi, 2013; Toyama & Yamazaki, 2018; Caikang, 2003).

As previously mentioned, four skill-specific anxiety can be indicated under the big umbrella of foreign language learning anxiety. Foreign language reading anxiety, though related to general foreign language anxiety (Saito et al., 1999), is particular of its own and not easily detected, since “reading does not require the spontaneous interaction that speaking does” (Zhao, Dynia & Guo, 2013, p. 775). According to Saito et al. (1999), reading anxiety is believed to have stemmed from two sources: unfamiliar scripts and unfamiliar culture. Learners often feel “anxious when they attempt to attach meaning to the foreign words written in a very unfamiliar script in a reading passage” (Zhao, Dynia & Guo, 2013, p. 765), which corresponds to the possible reading anxiety EFL learners may experience in EMI content area classrooms.

Learners are now required to comprehend and decipher the form and the meaning of a passage written in a foreign language for the purpose of reading to learn. Several studies have attempted to develop anxiety-reduction strategies that can be applied in language learning situations (Nagahashi, 2007; Galante, 2018). Though the strategies mentioned are effective, the strategies require a great deal of time and effort due to the complexity of the procedures that is not necessarily cost efficient. Thus, more research is needed in this area to explore techniques and interventions that are both effective and can be easily applied, which is one of the aims of this current study.

Multimedia Supports and Its Impact on Second Language Learning

Different types of multimedia supports, such as glosses, vocabulary focus, footnotes, illustrations, infographics, and photos, are often utilized to facilitate second language learning. These multimedia supports target local comprehension of novel words, i.e., micro-level supports, as well as global comprehension of the entire text, i.e., macro-level supports (Liu, Liu & Chen, 2019). Extensive studies have reported the benefits of multimedia supports in second language learning (Chun & Plass, 1996; Jones & Plass, 2002; Türk & Erçetin, 2012; Liu, Liu & Chen, 2019; Yanguas, 2009). For instance, according to Liu (2015), multimedia supports where illustration is combined with L2 gloss as well as pure illustration are proven to be the most effective in vocabulary acquisition and reading comprehension. However, the aforementioned studies merely include the use of multimedia supports in language learning e-books, and not in content area or discipline specific

textbooks. Hence, this study intends to bridge the existing gap and provide better insights on how to improve on the existing English medium content area textbooks.

Presentation Mode and Its Impact on Second Language Learning

Other than cooperating multimedia supports to facilitate acquisition and comprehension, the presentation of multimedia supports and its relevant text is another significant factor to take into consideration. In previous studies, simultaneous presentation of comprehension cues and its relevant text provide L2 learners with an optimal reading environment when reading e-books (Liu, 2015), and enhance the transfer of information (Türk & Erçetin, 2014). Also, research on different presentation mode of visual and verbal elements concludes that simultaneous presentation is more effective for vocabulary acquisition and comprehension (Liu, 2015; Türk & Erçetin, 2012; Liu, Liu & Chen, 2019), which leads to better learners' performances. However, in the studies of different presentation modes of verbal and visual elements, the main focus is on acquisition and comprehension, rather than alleviating EFL learners' reading anxiety. Therefore, this study intends to integrate effective multimedia supports, i.e., illustration combines with L2 gloss, with simultaneous presentation mode, in hope to reduce EFL learners' reading anxiety in an EMI course.

Methodology

Participants and Context of Study

This study will take place in a marketing course in a national science and technology university where the participants of this study are freshman-year students in the department of Business Administration. The participants comprise of 27 local Taiwanese students and 19 international students from southeast Asia and Europe. Thus, the medium of instruction as well as the medium of materials are explicitly in English.

Materials

In this marketing course, The Big Book of Marketing (see Figure 1) is used as a mandatory reading material where participants are required to read and conduct discussions on the content of the textbook with their fellow peers in English. Several paragraphs chapter six of the textbook are chosen to be the reading material for this study (see Figure 2), and multimedia supports, i.e., illustration with L2 glosses, is added later on to fit the purpose of this study (see Figure 3).

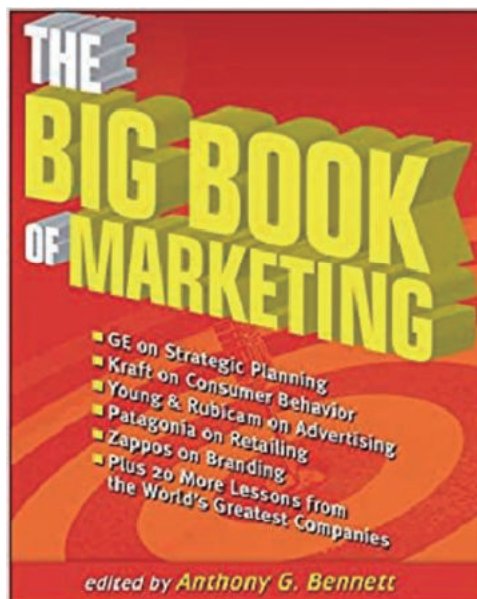


Figure 1. Mandatory reading material



Figure 2. Chapter 6 of the textbook

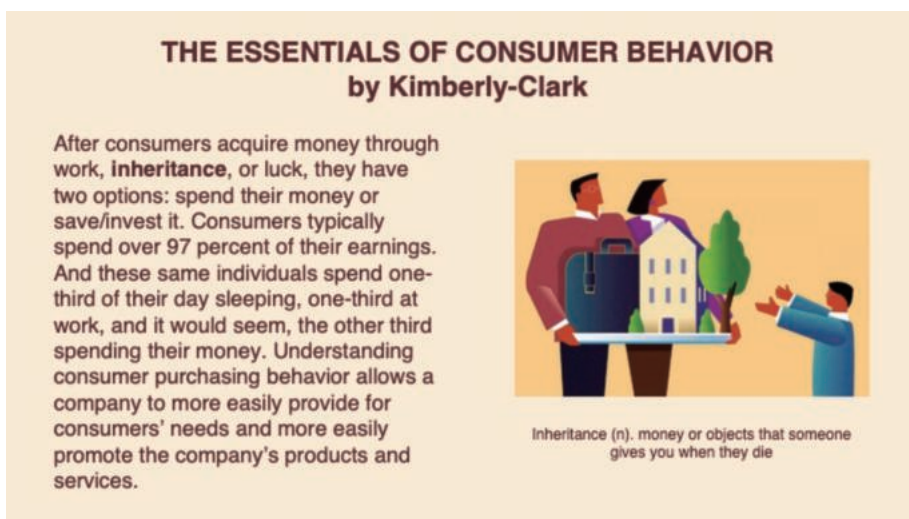


Figure 1. Paragraph enhanced with multimedia supports

Data Collection Procedures

Before the reading activity, a reading anxiety scale is administered to all of the participants (see Appendix A), and participants are required to circle their response based on how they feel towards each statement on the questionnaire. After each participant has filled out the questionnaire, only participants with pre-existing reading anxiety will be selected to proceed to the reading task.

For the reading task, participants will be given a tablet to flip through the passages given such as one in Figure 2, where a passage will be accompanied with its' corresponding multimedia glosses. Soon after the reading task, immediate interview will be conducted with the students who participate in the reading task. A comprehensive view of the interview questions can be seen in Appendix B, aiming to further understand and elicit participants' perspectives on the effects of simultaneously presented verbal and visual elements on their reading anxiety level.

Expected Outcome

It is expected that multimedia supports provided in this study will be beneficial in reducing EFL learners' reading anxiety in EMI content area course. After the intervention, learners' indication on a significant adjustment in the literacy or learning purposes is hoped to be observed as well. Besides the multimedia supports introduced during the reading task, other reading strategies, such as skimming or guided questions could also be introduced simultaneously during classroom hour in order to activate learners' prior knowledge.

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Appendix A

Foreign Language Reading Anxiety Scale (FLRAS)

1. I get upset when I'm not sure whether I understand what I am reading in (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
2. When reading (English), I often understand the words but still can't quite understand what the author is saying.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)

3. When I'm reading (English), I get so confused I can't remember what I'm reading.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
4. I feel intimidated whenever I see a whole page of (English) in front of me.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
5. I am nervous when I am reading a passage in (English) when I am not familiar with the topic.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
6. I get upset whenever I encounter unknown grammar when reading (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
7. When reading (English), I get nervous and confused when I don't understand every word.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
8. It bothers me to encounter words I can't pronounce while reading (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
9. I usually end up translating word by word when I'm reading (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
10. By the time you get past the funny letters and symbols in (English), it's hard to remember what you're reading about.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
11. I am worried about all the new symbols you have to learn in order to read (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
12. I enjoy reading (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
13. I feel confident when I am reading in (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
14. Once you get used to it, reading (English) is not so difficult.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
15. The hardest part of learning (English) is learning to read.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)

16. I would be happy just to learn to speak (English) rather than having to learn to read as well.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
17. I don't mind reading to myself, but I feel very uncomfortable when I have to read (English) aloud.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
18. I am satisfied with the level of reading ability in (English) that I have achieved so far.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
19. (English) culture and ideas seem very foreign to me.
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)
20. You have to know so much about (English) history and culture in order to read (English).
SA (strongly agree), A (agree), N (neither agree nor disagree), D (disagree), SD (strongly disagree)

Appendix B

Interview Questions

The following interview questions will be translated into Chinese when interviewing local students and kept in English when interviewing international students.

1. Do you generally feel confident or nervous when you are reading English materials?
2. (If the answer to question 1 is "yes, I feel nervous") What are the causes of your nervousness or anxiety?
3. How did this feeling affect your learning in this course?
4. How do you cope with this anxiousness?
5. After reading the texts with multimedia supports, do you still feel uneasy in reading English materials?
6. How did the multimedia support help to reduce your uneasiness/nervousness?