



Enhancing English Vocabulary Learning through Listening to Vocal Music

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Abstract

This paper presents the findings of a fourth-year English major concerning the effects of listening to vocal music while learning English vocabulary. While previous research has extensively documented the positive effects of music on the human brain, there is a dearth of studies addressing the specific influence of vocal music on memorization tasks. The primary objective of this study was to ascertain whether listening to vocal music exerts any discernible impact on English vocabulary memorization. Although inconclusive, the findings suggest that listening to vocal music while studying had a somewhat adverse effect on the participants' focus and concentration.

Keywords: *English vocabulary, memorization, listening to music*

1. Introduction

The benefits of music on human mind have attracted extensive scholarly attention. Music has been identified as a potent tool for stress reduction and mood enhancement [1], as well as a catalyst for heightened motivation and concentration [2]. Furthermore, it may facilitate the memorization of new information [3]. With the advent of portable technologies such as smartphones and mp3 players, many students now incorporate music into their daily routines, including activities like studying.

In recent years, an expanding body of research has delved into the relationship between music and study activities. Nevertheless, the findings in this field are rather inconclusive. Some studies conducted in Japan failed to establish a discernible link between music and improved learning outcomes [4], while others have indicated a beneficial influence on concentration during the learning process [5]. Additionally, investigations examining the specific nature of the learning task and the age of the learner have yielded conflicting results [6].

However, it is worth noting that relatively few studies have thoroughly investigated the influence of vocal music on concentration and memorization. Prior research has yet to address the effects of various music types (instrumental vs. vocal) and genres (classical, pop, jazz, hip-hop, etc.) on study habits. Therefore, the primary objective of this paper is to explore the impact of vocal music, specifically music with English lyrics, on English vocabulary memorization tasks. It is noteworthy that Japanese students exhibit a diverse range of musical preferences, including vocal music featuring English lyrics. Consequently, to assess the implications of music with English lyrics on memorization tasks, the author has decided to conduct the present research.

2. Literature Review

Previous studies have indicated that listening to music while studying can enhance the efficiency of the learning process by increasing concentration and focus. A 2011 study involving boys with ADHD (attention deficit hyperactivity disorder) suggested that, despite individual variations, classroom performance improved when students listened to music while engaging in learning activities [7]. Moreover, although multitasking during study sessions may be ineffective for some, others find it beneficial as music helps to drown out surrounding noises [8]. On the contrary, listening to one's favorite music while studying may divert concentration away from the task at hand [4]. Particularly, music with lyrics in the learner's native language may disrupt their focus. Ultimately, the ideal study environment depends on individual preferences [9].

In addition to individual differences, it is essential to consider variations in study subjects. A study involving 75 participants aimed to investigate the impact of music on verbal learning performance [10]. This study utilized new musical compositions varying in tempo (fast vs. slow) and consonance (in tune vs. out of tune). It found that listening to music had no discernible influence on



verbal learning. In contrast, a study that sought to determine the optimal environment for mathematical and memory tasks among elementary school, junior high school, and college students revealed that while junior high school and college students performed best in silence, elementary school students demonstrated improved memorization when they studied while listening to classical music [6]. However, their mathematical performance did not exhibit any positive or negative impact from music.

Apart from its demonstrated effect on learning efficiency, listening to music has been found to stimulate motivation. A 2014 study utilizing instrumental music from YouTube to assess students' descriptive writing performance showed improved performance, along with increased endurance, effort, and motivation [11]. Another study involving different age groups (12-13, 15-16, and 20-21 years old) revealed that younger students listened to music the least, whereas older students who listened to music daily tended to do so even during study sessions [12].

Despite previous investigations into the effects of studying with music, most research has concentrated on factors like melody and rhythm, such as classical or upbeat music. Therefore, this research aims to examine the distinction between the impact of studying with vocal music and studying without music. To assess the influence of music with lyrics, an experiment was conducted among Japanese students majoring in English. Furthermore, this study primarily focused on English vocabulary acquisition, drawing on earlier findings that suggest music is more likely to have an effect when applied to memorization tasks [6].

3. Methodology

3.1. Objectives

One of the primary objectives of this research was to investigate how listening to vocal music (with lyrics) affects the learning of English vocabulary. To accomplish this, the author conducted an experiment comparing the results of participants who studied English vocabulary while listening to music with those who studied without music. Prior to the experiment, a survey was administered to participants to inquire about their regular use of music while studying and their preferred musical genres.

3.1.1. Participants

The participants comprised 19 English majors enrolled in a seminar at Nagoya University of Commerce and Business. This particular sample was chosen to replicate real-world study scenarios, with students actively engaged in English studies.

3.1.2. Survey

Prior to conducting the experiment, a three-item multiple-choice questionnaire was administered to the participants. The aim was to determine the type of vocal music that most participants preferred while studying. The questionnaire was created in a bilingual format using Google Forms and distributed online through Google Classroom.

Figure 1 below shows the participants' preferred music genres during study sessions. Out of the participants, eight students (42%) selected rapid tempo music, such as pop and rap. Only one participant reported listening to classical music while studying. Considering that the proportion of participants who preferred vocal music was significantly higher than those who favored instrumental or classical music, and given the notable preference for pop music, the author chose Taylor Swift's song "Shake it off" as the background music for the experiment.

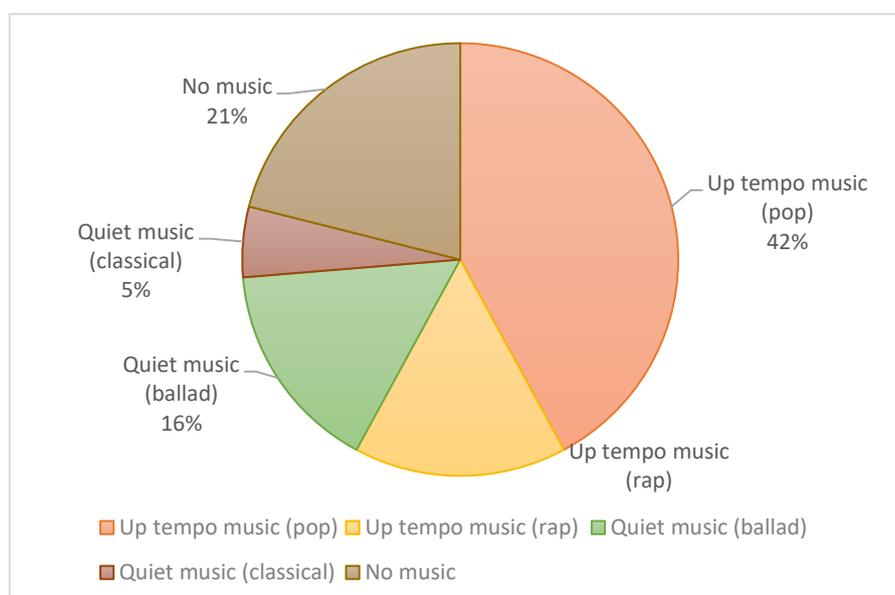




Figure 1. The kind of music participants listen to when they study

3.1.3. Preparing word lists and the test

To ensure equal conditions, the author selected 20 difficult English words featured in the 'Eiken,' or English Proficiency Test, which were likely unknown to all participants. Subsequently, the vocabulary items were randomly divided into two groups: one for studying without music and another for studying with music. Each participant was allotted five minutes to study and memorize each of the two vocabulary lists, first without music and then with a musical background. Next, two vocabulary tests, each based on one of the word lists, were created using Google Forms. In these tests, participants were presented with English words and asked to provide their corresponding meaning in Japanese. All 10 words were presented in a question-and-answer format, with each correctly answered question worth one point. The maximum achievable score was 10 points.

3.1.4. Conducting the experiment

The five minutes of study time were immediately followed by a three-minute test. During this phase, we did not prescribe any particular study method; instead, we instructed each student to proceed in their customary manner. The experiment was carried out twice: first in a silent environment and then a second time with music.

4. Findings and analysis

4.1. Findings about effectiveness of studying vocabulary with music

The difference in scores between studying with music and without music is illustrated in Figure 2 below. This figure shows the variance in scores on an English vocabulary test when participants studied with music and when they studied without music. The overall results indicate that scores tended to be higher in the absence of a musical background. Nine participants scored between 5 and 6 points when studying without music, compared to an average score ranging from 3 to 5 points when vocal music was used as a background.

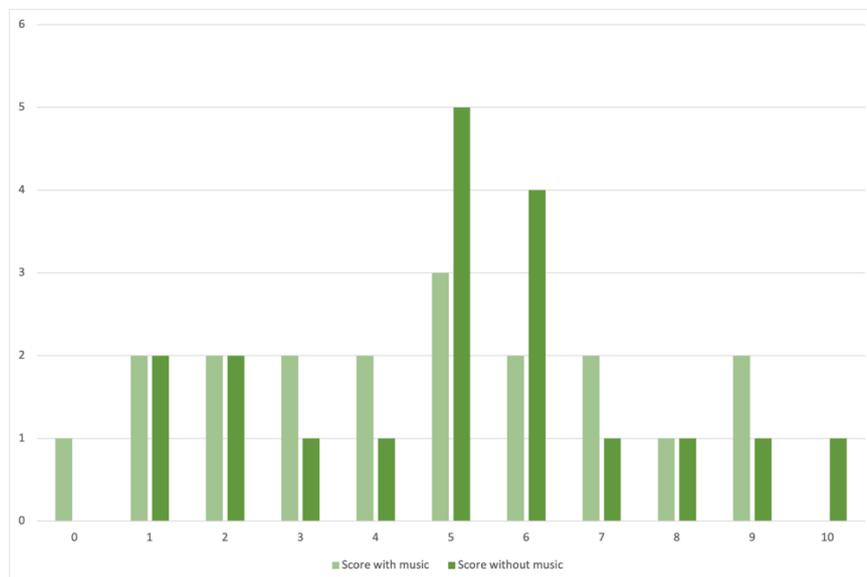


Figure 2. Difference in participants' scores when studying English vocabulary with and without music

Next, to identify statistically significant differences, we analyzed our data using a t-test for two dependent means (Table 1).

	With music	Without music
Average	4.58	5.05
Median	5	5
Standard deviation	2.71448357	2.50496583



t	0.630986
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Table 1. Average, median, standard deviation, and t-test result of each of the experimental results ($p < .05$).

Table 1 suggests that, for some participants, studying English vocabulary without music is somewhat easier and more effective. However, the t-test results indicate that there is no significant difference between the two methods. Therefore, our study does not provide conclusive evidence that listening to vocal music enhances the effectiveness of studying English vocabulary.

5. Limitations

The most significant limitation of this research is the small sample size. With only 19 participants, the t-test results failed to show significant differences. Furthermore, the study highlights that the effectiveness of using vocal music as a background for memorization tasks varies greatly based on individual differences and preferences. Consequently, some individuals may perform better when exposed to a musical background, while others may perform poorly.

Another limitation pertains to the language of the vocal music used in the experiment. As previously noted, lyrics in one's native language may negatively impact concentration [8]. Therefore, future studies should investigate how language comprehension in music influences the efficiency of study behavior.

Conclusion

While inconclusive, the results of the present study suggest that listening to vocal music while studying tends to interfere with the learning process and may have a negative impact on effectiveness. However, given the limited sample size and previous research indicating that some individuals benefit from studying with music, it can be argued that the actual effect depends on the individual, the subject, the environment, and the purpose of the study. Effective learning often hinges on the learner's sense of enjoyment. Therefore, further research should investigate the capacity of vocal music to motivate learners.

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