Listening to Slow Soft Music and Loud Music while Reading and Achievement in Reading Comprehension of Tai Solarin University of Education Students, Ogun State Nigeria

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Abstract

This study investigated if listening to slow soft or loud music has any significant effect on achievement in reading comprehension of Tai Solarin University of Education Students in Ogun State, Nigeria. It also investigated reading without the aid of music to measure achievement in reading task as well. Three hypotheses were tested to conduct the study using 600 300 level undergraduate students of the university as the population for the study. The study adopted quasi-experimental design using stratified clustering technique to collect data and the instruments used were reading comprehension achievement test and the songs of some music stars in Nigeria. The hypotheses tested were, $H_0 1$: There is no any significant main effect of listening to slow soft music while reading on reading achievement of undergraduate English students of Tai Solarin University of Education. $H_0 2$: There is no any significant effect of listening to loud music while reading on academic achievement of Tai Solarin University of Education undergraduate English language students. $H_0 3$: There is no any significant effect of not listening to either slow soft or loud music while reading on academic achievement of Tai Solarin University of Education English language students. The result shows that listening to slow soft music had a significantly positive effect on the reading achievement of the students ($p<0.05$). The result also indicated that the students in the control group who were exposed to no music during their reading had a lower mean reading achievement score (Mean = 9.621±3.999) than those students exposed to slow soft music during their reading (Mean = 10.619 ± 3.692). It was recommended that students should understand their

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personality traits to decide their music preferences or to read or not to read while studying.

Introduction

One of the skills required for effective study is the ability to read with a great deal of attention. To fare well in any academic -related issue at whatever level of formal education – primary, secondary or tertiary education level, one is expected to be an avid and purpose - driven reader with the sole aim of benefiting from the content represented in black and white, whether physical or electronic. The last word in the remark just made, "electronic" seems to have added quite a great deal of challenges to the task of smooth and effortless reading comprehension. Unlike in the past when reading was only dependent on printed paper, the modern day different online social platforms appear to have left the present age readers with alternatives 'believed' by scholars to pose very dire consequences on ability to read with maximum understanding and sufficient comprehension (Abubakar & Alex, 2017; Dukper, Baffour & Beatrice, 2018; Musa, Febisola & Ibrahim, 2020). One of such is the effect of different genres of musicin the Nigerians' environs on reading comprehension achievement. Today, with a click or tap on buttonof any of the modern-day phones (android or iPhone), readers can listen to different types of music genres – Hip hop, Jazz, Rock and roll, Blues, Reggae, Soul, classical, to mention just a few, from any part of the world while engaging in reading simultaneously. Quite an avalanche of music online platforms is out there for the listening pleasure of the modern-day Nigerian youths and university undergraduates. Opinions are however divided as to whether listening to music simultaneously while engaging in a task-oriented academic reading could pose any threat to reading comprehension and invariably, effective study. One of these views affirmed that listening to music while reading as an antidote againsttension-soaked and stress-prone atmosphere that most Nigerians scholars are regularly exposed to. Tension- induced because of the enormous problems faced by these teeming scholars. The appalling situations include unending and elongated academic session, economy hiccups besetting an average Nigerian parents with debilitating effects on their children's well-beings and failure of the Nigerian leaders to provide succour to cushion the effects of the harsh economic situation being experienced from time to time in the country, to mention just a few.Listening to music while reading, according to theseschool of thoughts, could bring about calmness and unruffled self-assurance required to reduce these tensions thus, paving channel for success in academic-purpose reading (Hughes, 2021; Ogba, Ede & Ugboke, 2019; Modeme & Sunday-Kanu, 2014). Inherent in this submission is that listening to music while reading can wade off stresses readers are often exposed to as they engage in their daily activities, remove boredom and rejuvenate their minds. This will inevitably bring about concentration and adequate mastery of the contents being read. The belief is that, the cognitive processes involved in reading comprehension require a great deal of readers' awareness of sensible intellectual maneuvering of thinking, reasoning and remembering taken place while reading, and that, any cognitive damage as a result of stress

or boredomcould impair reading effectiveness. Listening to music could then serve as therapeutic to reduce these effects.

Other researchers hold the notion that the task of academic - oriented reading particularly at the university level of teaching/learning requires a great deal of concentration. At this level, readers are expected to explore all forms of reading strategies to conjure out meaning out of large volume of reading materials they are to read in order to maximise learning. One of these strategies is the meta cognitive strategy, which is essential for making reader to have an "awareness of their reading process before during and after their reading (Ozgur, 2019). Metacognitive strategies involve 7 strategies employed by readers to digest reading materials fully, they include activating, "summarizing, monitoring, clarifying, visualizing and organizing, searching and selecting and lastly, questioning and inferring" (Patricia, 2015, para.1). Readers need these strategies to arrive at the meaning of what they are reading. If the process of getting meaning out of a given passage is this complex, the submissions of some researchers about the negative effect of listening to any brand of music while reading can then be understood.These researchers concurred that listening to music while reading could bring about lack of concentration or distraction. They held that the physiologicalnoise emanating from the sound of any music could jeopardize effective comprehension of message inherent in the material read.

They postulated that listening to music while reading could lead to inability to comprehend the contents being read, pose challenge to assimilation, bring about difficulty retaining facts from the passage and general loss in the book. For example, Daniel (2018) spoke about the auditory distraction effect of listening to music while reading in a new meta- analysis study he reviewed. The conclusion of the review warned that children should not be exposed to background music while reading because of what he perceived to be "reliable negative impact of background noise, speech and music" (par.1) on reading performance of children. Affirming similar position is the statement credited to Emmanuel 2015):

> While the effectiveness of music in stirring up the mood of a learner is not contestable, however, nothing could be truer to say than the fact that listening to music while engaging written texts places unprecedented   demands   on students' attention and learning. Even if listening to music offers sensory simulation, according to Kristy (2015), it has the potential to distract students and compromise their attention and learning. As information from both sources, i.e., from the music and what is being read could be "too "much forthe reader's brains, such that it could result to info-"besity" and cognitive overload. A number of studentswho engage in this multi-tasking activity of music listening while reading may not be wary of the priming cognitive effects such activity bear on their comprehension (p.113).

Julia, Brian and Suzanne (2022) in their own investigation were somehow genres- specifics in the type of music that could bring about distraction to comprehension and the mastery of the subject being studied. They distinguished between the music genres that could bring about

under achievement in reading. To these scholars, Pop, Rap or country music laden with high instruments with loud and fast lyrics are not reader-friendly, they thus, recommended classical or instrumental music to students embarking on serious academic reading. Other line of argument against listening to music while reading delves into the personality traits inherent in an individual and the type of task for which reading and listening to music could be paired simultaneously with. Based on this submission, extroverts are said to love playing music while reading while introverts are said not to (Holmes, 2019; Mistry, 2015). However, recent findings from Aghajani (2019) was in sharp contrast to this theory as his investigation showed that listening to music while reading did not show any significant difference in the performance of either extroverts or introverts' personality traits. This is the puzzle inherent in this study. Is it possible to listen to music while engaging in say, serious academic reading with the comprehension of the content being read unhindered? Can slow soft songs of whatever genre enhance reading effectively? Does loud music have any positive or negative impact on ability to comprehend the material being read fully given the negative impact of physiological noise as albatross to effective study habit. This is the kernel of this academic enterprise.

The Concept of Noise and Reading
In communication, noise can be referred to as anything that has militating influence on effective comprehension of what has been communicated either in spoken, reading or written communication (Jandt, 2018). It is also defined as anything that "hinders shared meaning" (Jade & Shawn, 2022). The opinion just stressed connotes the fact that, noise, particularly background noise, could pose a very serious challenge to effective understanding of the thoughts being conveyed during interaction. It is a big challenge to smooth and flawless communication, particularly, listening and reading communication. Communication involves interaction, which could either be from the text to the reader or that between the encoder of a message to the decoder in face to face interaction.

Different types of noises have been investigated by researchers and one of them is the psychological noise inherent in an individual as a result of a number of factors. These factors are individual-based, for example, the loss of a dear one could bring about loss of interest in a given assignment, reading inclusive, hunger, boredom and general apathy are some of the few psychological noises that can pose problem to effective reading. The likelihood not to benefit from the material being read if a would-be reader is involved in any of the above-stated crises is very certain and this could bring about psychological noise to reading and of course, inefficient study. In brief, and as enunciated by Jade and Shawn (2022), psychological noise is involved whenever there is a mixture of emotion obstructing the encoder's ascribing meaning to the message being shared.

Of particular interest to this study, however, is the physiological noise which can emanate from any type of music depending on the view of the hearer(s) about the music. Noisy background, such as vehicular hooting in school environs and disturbance from churches' and mosques' loudspeakers as the Nigeria situation offers, are some examples of physiological noises that can serve as impediment to reading success. These types of noises can also be

described as environmental in nature (Odinko & Adeyemo, 1999). Noise is synonymous with sound and in fact, an important aspect of the sound. It has not been fully established by researcher when music becomes a mere noise (my assertion anyway) but noise has been "variously described as unpitched, indeterminate, uncontrolled, loud, unmusical or unwanted sound" (Wolf, 2012). From the quoted assertion, it is possible to then agree that music becomes noise when it is uncontrolled, unwanted and loud.

The Problem

The study is aimed at finding out the effect of listening to slow soft and loud music on the rate at which readers can assimilate the content of reading. Reading comprehension is crucial to academic excellent of undergraduate students who must consume large number of reading materials both in text and print, to fare well in their studies. It appears as if the emergence of the so many music platforms like Apple music, sportify, pandora and others within their domain, have rendered the gains of serious academic reading engagement ineffective. Based on this problem, the following questions are generated for this study:

i. Is there any significant main effect of listening to slow soft music while reading on reading achievement of undergraduate English students of Tai Solarin University of Education?
ii. Is there any significant effect of listening to loud music while reading on academic achievement of Tai Solarin University of Education undergraduate English language students?
iii. Is there any significant main effect of not listening to either slow soft or loud music while reading and achievement in reading comprehension of Tai Solarin University of Education English language students?

Research Hypotheses

Arising from the above research questions are the following hypotheses:

$H_0 1$: There is no any significant main effect of listening to cool music while reading on reading achievement of undergraduate English students of Tai Solarin University of Education

$H_0 2$: There is no any significant effect of listening to loud music while reading on academic achievement of Tai Solarin University of Education undergraduate English language students.

$H_0 3$: There is no any significant effect of not listening to either cool or loud music while reading on academic achievement of Tai Solarin University of Education English language students.

Methodology

The study adopted quasi-experimental design using stratified clustering technique to collect data. Clustering method of collecting data was arrived at because of the three groups involved. The groups are: (a) those who listened to slow soft music while reading (b) those who listened to loud music while reading and (c) those that did not listen to either slow soft

or loud music while reading. The 3 groups answered the questions below the passage after reading the passage.

Population and Sample

The population for this study comprised all 300-level undergraduate English language students of Tai Solarin University of Education who took part in English 317 titled: measurement and evaluation in English language handled by the researcher during the first semester of 2020/2021 academic session. The university is located at the Odogbolu Local Government of Ogun State, Nigeria. Being a university of Education and English language department, females constituted about 75% of the population while the remaining 25% were males. In all, about 600 students were selected to take part in the study, with 200 each for a group of three. The average age of the participants was between 19-35 years. The reading achievement test experiment made up of the control and experimental groups was conducted at the end of the semester's lecture period handled by the researcher. This is done to investigate the authenticity of some of the issues raised on music impact on ability to read with required level of comprehension of the students' course materials.

Instruments

The instruments used were reading comprehension achievement test extracted from one of the published articles of the researcher, titled: Mother tongue literacy and early reading pedagogy. It was published by the Ibadan Journal of Educational Studies and used after permission from the publisher. The extracted introductory paragraph of the text was about 500 words and participants were given about 20 minutes to read and answer the questions below the passage. Question items to be answered were those testing their abilities to quickly decipher information from the text and those testing their grammatical knowledge in understanding the use of phrases, clauses and their functions as well as their relationship to other words in the sentences. From the passage, the researcher investigated their knowledge of vocabularies as well. They were instructed to provide words that could replace those used in the passages. The passage tested students' abilities to read the line, between and beyond the line. Preference for the choice of this passage was because of the readability index of the passage. A text certified readable for a secondary school student cannot be a reliable measure of readability index of an undergraduate, hence, the choice of academic journal instead of secondary school reading comprehension textbook.

Another instrument used for collection of sample were three music boxes. Attached with the boxes were speakers producing audible and clear sounds capable of giving different danceable vibes. The first group engaged in the reading and comprehension task while listening to loud mixed lyrical songs produced and released by popular Nigerian music stars such as Ahmeed Ololade, popularly referred to as Asake, Azeez Fasola whose pet name is Naira Marley, John Saviours Udonboso, known as Young John, a producer turned singer. The researcher also used lyrics from Zinoleesky hit track, "kilofese", interpreted as "what do you want to do?" His real name is Olayide Azeez. The second group embarked on the reading task simultaneously while listening to slow soft songs from musicians such as Chinonso Ome known by his stage name as Jaywiillz or Rollboy, Wizkid, named Ayodeji Ibrahim Balogun

and Alexander Adelabu referred to as Magixx. The third group embarked on the reading task without listening to either of the slow soft music or loud lyrical beat. They were kept in a separate lecture theatre far from the vicinity of the two experimental groups. This is the control group. The duration for the exercise was 30 minutes. Ten minutes was allotted for the preparation of each of the groups and 20 minutes each were used for reading and attempting the questions below the passage. Three large lecture theatres were used to accommodate the students' population. Each of the lecture theatres was manned by 4 four hundred level students who had just completed their own final year examination. Each of the participants was allowed to pick the genre preferences of the music earlier played to them before the exercise and they were not informed about the intention of the researcher to prevent bias.

Data Analysis
All statistical analyses were carried out on Statistical Package for Social Sciences Version 22. Initial normality test was carried out to confirm if the data fitted into a normal curve prior to inferential analysis. Categorical data are presented as frequencies and percentages while continuous data are presented as means ± standard deviations. Independent sample t-test was used to compare the means of the reading achievement scores between control group and group of students exposed to music.

Results
$H_0$1: There is no any significant main effect of listening to slow soft music while reading on reading achievement of undergraduate English students of Tai Solarin University of Education
Table 1 below shows the mean of reading achievement of students taught with soft slow music compared with students taught with no music using independent sample t-test. The result shows that listening to slow soft music had a significantly positive effect on the reading achievement of the students ($p < 0.05$). The result also indicated that the students in the control group who were exposed to no music during their reading had a lower mean reading achievement score (Mean = 9.621±3.999) than those students exposed to slow soft slow music during their reading (Mean = 10.619 ± 3.692). This result suggests that listening to soft slow music produced better reading achievement outcome among the students sampled.

Table1: Mean reading achievement of students taught
with soft slow music compared with students taught with no music

Group	Mean	Standard Deviation	p-value
Slow/Soft Music	10.619	3.6921	0.008
No Music (control)	9.621	3.9994	

$H_0$2: There is no any significant effect of listening to loud lyrical music while reading on academic achievement of Tai Solarin University of Education undergraduate English language students.
Table 2 shows the mean reading achievement of students taught with loud music compared with students taught with no music using independent sample t-test. The result shows that

listening to loud music had no significant effect on the reading achievement of the students (p>0.05). The result also shows that, though the students in the control group who were exposed to no music during their reading had a lower mean reading achievement score (Mean = 9.621±3.999) than those students exposed to loud music during their reading (Mean = 9.762 ± 3.8611), the observed differences in their reading achievement scores did not reach statistical significance. This result suggests that listening to loud music exerted no significant effect on the reading achievement outcome of the students sampled.

Table 2: Mean reading achievement of students taught
with loud music compared with students taught with no music

Group	Mean	Standard Deviation	p-value
Loud music	9.762	3.8611	0.713
No music (control)	9.621	3.9994	

H_03: *There is no significant effect of not listening to either slow soft or loud music while reading on academic achievement of Tai Solarin University of Education English language students.*

Next, it was hypothesised that there would be no significant difference in the mean reading achievement scores of students who listened to either slow soft music or loud music when compared with students who did not listen to any kind of music (control) during their reading. The t-test analysis reveals that listening to music, either slow soft or loud, had no significant effect on the reading achievement of the students (p=0.077). The result also shows that, though the students who were exposed to music during their reading had a higher mean reading achievement score (Mean = 10.188 ±3.7974) than those students not exposed to music during their reading (Mean = 9.621±3.9994), the observed differences in their reading achievement scores were not statistically significant. This result suggests that listening to music exerted no significant effect on the reading achievement outcome of the students sampled.

Table 3: Mean reading achievement of students taught
with either slow soft or loud music compared with students taught with no music

Group	Mean	Standard Deviation	p-value
Either slow soft or loud music	10.188	3.7974	0.077
No music (control)	9.621	3.9994	

Discussion of Findings

From the investigation, it can be deduced that the only hypothesis that showed significant positive effects on reading achievement is the first hypothesis, that is, H_02. The result shows that listening to slow soft music had a significantly positive effect on the reading achievement of the students whereas, students exposed to no music at all did not show any positive significant effect on the mean score in reading. The interpretation of this result suggests that soft slow music, based on the outcome of this study, could enhance effectiveness in reading. This is in line with submission of researchers like Julia, Brian and Suzanne (2022) earlier

referenced in this study. They hypothesized that loud music is not reader-friendly and recommended classical or instrumental music to students embarking on serious academic reading. Further studies aside from this, albeit foreign, also revalidated the outcome of the current investigation. Findings of Arnaud, Lenid, Perlovsy, Marie-Claude and Michel (2013) confirmed that listen to pleasant music why engaging in a study-related task assisted students to conquer stress. This inevitably improved their grades. Perhaps the freedom given to the subjects who took part in this study in the choice of the genres of music pleasant to them could account for their better performances. A study conducted in Vaughn College in 2018 indicated that slow soft music when paired with reading helped the college students increase "their concentration, lessen distraction, improves focus and relax their brains (Vaughn College, 2018, para.1). The study stated that calming songs such as Mozart Classical music and songs that devoid lyrics are veritable effective reading booster. Apart from this, reading without music and reading with loud music as indicated in this study are not reliable measure of reading performance of the subjects (students) used for this study.

Conclusion

As revealed in this study, genres preference of music could determine achievement in reading comprehension and ability to perform creditably in school work. Thus, exposure to noisy music and unfriendly atmosphere could hamper ability to fare well in reading related task of university undergraduates, who must consume a large number of reading materials that the dictate of their various course of study demand.

Recommendations

In the light of the outcome of this study, the following recommendations are made:
Undergraduates students in the university should choose the best reading strategy considered best suited for their studies. One of the best methods of doing this is by having an awareness of themselves and understanding the differences inherent in them. This will help them not to copy from their colleagues reading strategies not best appropriate for their academic growth and development. A particular student may choose to read with or without music as background, other may prefer to study with slow soft music or loud music. The underline message here is that, everyone is born with their personality attributes and one must stick to the one that can add value to their studies. Synonymous with the opinion just stated is that undergraduate students should create playlists of the type of music they enjoy listening to in case they find it difficult to concentrate without listening to music while studying.

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