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Music Listening As a Purposeful Reading Strategy among Undergraduates in South West, Nigeria: Implication for Discourse Comprehension

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Abstract

The prominence of reading at any level of education has been established. Due to the fact that students are left to fashion out reading strategies themselves, significant number of them engage in self-gratifying activities while reading. Some of them smoke while others listen to music while they read. In view of these habits, this study examines the effectiveness of listening to music as a purposeful reading strategy among undergraduates in the South West, Nigeria. Through purposive sampling technique, two tertiary institutions were selected for the study. Fifty-two (52) second year students were drawn from each of the selected institutions. The instrument for the study was a test extracted from their course material entitled: Reading Achievement Test (RAT) which comprised twenty (20) test items. The reliability results r- 0.79 shows that the instrument is reliable. Two hypotheses were raised and tested using inferential statistics of t-test and Pearson Product Moment Correlation (PPMC). The study found out that: music listening as a reading strategy had no significant effects on discourse comprehension. The study further indicated that age does not have any significant relationship with students' attention management as revealed in the test given. On the basis of the findings, amongst others, it was recommended that educators at all levels teach their students the best scientifically tested strategies to engage texts in order to achieve comprehension. Campaign against bad reading habits should be staged. Facilitators should create environment of scholarship which favors achievement in cognitive and affective outcomes for their students.

Keywords: Music, Reading, Reading Strategy, Undergraduates, Discourse Comprehension, Attention

Introduction

Basically, all languages of the world, English language inclusive, have four skills – listening speaking, reading and writing. While listening and speaking are regarded as oracy skills, reading and writing are literacy skills. Reading as one of the literacy skills is

the springboard upon which an educational life of a child is built and also, a major determinant of students' success in his/her educational pursuits. Reading exposes one to a window of information and knowledge. "What a compass is to a navigator is what reading is" to students who is in constant "search for knowledge through graphic symbols" (Otagburuagu, 2001). It follows then that any student who is unable to read has failed to acquire the skill that will enable him/her to navigate the highly evolving literate society and consequently, be at a serious disadvantage socially and emotionally.

There is no gainsaying the fact that reading is a complex process (Tunde-Awe, 2008). It involves many activities and phases. The process of reading starts with the eyes which perceive the printed symbols, then to the brain where the actual cognition takes place. Subscribing to Iyioke (2008)'s reading development, reading begins with the sensory impression which, could either be visual or tactile; followed by the auditory sense where association of the printed symbol with spoken language occurs. Succeeding this stage is the intellectual stage where comprehension is the ultimate goal of engaging in reading exercises. The reader at this juncture exert sentient effort to advance his/her reading as new demand is made on their reading ability which conditions him/her to employ questioning, anticipating, evaluating and interpretative skills to decipher authors' message and intents. At the tertiary level, the locus of reading activities is colossal; such that it is synonymously used with the word *"studying"*. Reading, which is a means of tapping knowledge from discourse pundits, is the major means of scholarship at the university level along with lectures and course works. The prominence that university teachers accord to the use of textbooks is attested by the number of coverage given in teacher resource materials, of which essence is to motivate students to read widely. What students actually make of these resource materials is, therefore, a principal factor shaping the quality of the learning experience (Pecorari, Shaw, Irvine, Malmström, & Mežek, 2012). To get the best of authors' messages, tertiary students, world over, employ different reading strategies that best suit them and their purpose of reading.

Given that there is no best reading strategy, close studies and casual observations have, overtime, revealed that a number of Nigerian undergraduates espouse anything that gratifies their mind while reading, which consequently make them to multitask during reading activities. A number of them chew *"gum"*, smoke cigarette and marijuana, some of them even engage in other unprintable activities to make reading less boring and pleasing; while others listen to music via headsets, air pods and ear pieces etc. to lessen the tenseness that comes with reading. Due to the influence music welds on humanity and its therapeutic effects, the researcher finds the ripple effects of music on discourse comprehension enthralling and that form the focus of this study.

Extant studies have established the effects of music on cognition. Schellenberg (2004) maintains that music is an unnatural way to boost the IQ. According to cognitive scientists, music is a neurotransmitter which when played releases dopamine that is

responsible for mood and memory enhancer. To Wallace (1994), Thompson (2005), Schellenberg (2007), music augments arrays of cognitive functions, such as attention, learning, communication and memory. One may not be wrong to conclude, therefore, that listening to music while reading could ace cognition of a given discourse. The empirical studies of Jaušovec, Jaušovec and Gerlič (2006) on music further strengthen the position of these scientists. In their studies, the effects of mozart's music on the learning of students. They found out that mozart's music helps in stimulating task-relevant brain areas and at the same time acing learning of spatio-temporal rotation tasks. The study of Martin, Wogalter and Forlano as cited in Sofologi and Theofilidis (2020), however, takes a contrary position. They found out that reading comprehension was impaired when students played lyrical music. More so, Fassbender, Richards, Bilgin, Thompson and Heiden (2012)'s study found out that music is capable of affecting the memory in a negative manner. These inconsistencies in the findings of the reviewed scholars informed this study, as Nigerian undergraduates still employ music listening as a reading strategy.

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 for the reader's brains, such that it could result to info-*"besity*" and cognitive overload. A number of students who 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.

Of significant importance to this study is the age of the readers. It has been established that reading requires a great deal of active participation of the reader such that s/he has to constantly agree and disagree with the writers and attempts to construct meaning from the text by activating his or her individual knowledge of linguistic forms, (meta) cognitive skills, using his/her knowledge of the world (Hadley, 2003 cited in Apata & Emmanuel, 2020). With this in mind, reading, therefore, requires a great deal of attention. Students with Attention Deficit Disorder would found themselves "wandering" and "loitering" around in their minds. Scientists have us believe that attention management occurs only in the pre-fontal cortex of the brain. The part of the brain is usually the last part to develop completely. The development of this sensitive part occurs in female during their early 20s and for the male around late 20s. The implication of this therefore for this study is that male students within the age ranges of 18 – 24 years would find it difficult to multitask – read with music because at that time, their pre-fontal cortex has not fully developed and they may find it difficult to manage their attention compared to their female counterparts whose pre-cortex develop as early as their early 20s. In the light of this,

therefore, this, also, examines the influence of age in utilizing music as a deliberate reading strategy among undergraduates in AAUA.

Theoretical Framework

Attention Drainage Theory

This theory is anchored on limited capacity theory of Kahneman (1973). Attention drainage ensues when a distraction reduces the attention capacity of an individual in information processing tasks. The size of distraction, however, is premised on how arousing the distractors are. Acceding this, Kahneman (1973) contends that there is a limited amount of resources in a person's mental capacity for information processing and therefore, the task with high arousal level gets the most attentions. According to Chou (2010), arousal energy is a principal actors in the process of attention and also, the aptitude to carry out mental activities concurrently is dependent on the demand of each single activity performed in isolation. It therefore goes that an easy task takes less attention while a complex or a difficult task requires more attention. Since different activity demands varying capacity of our attention, when it is short of supply, performance fails or wanes. This is known as capacity interference. On the other hand, when two cognitive activities are competing for the same level of attention and the brain could not meet up, structural interference occurs. In this case, in order to meet up, according to Chou (2010), more processing resources is needed.

Methods

A quasi-experimental research design was adopted for the study. The population for the study comprises of all undergraduates in tertiary institutions in Ondo state, Nigeria. Through purposive sampling technique, two tertiary institutions, namely, Adekunle Ajasin University, Akungba Akoko, Ondo State and Ekiti State University, Ekiti, were selected for the study. The choices of the institutions were made based on their proximity to the researcher. Fifty-two (52) second year students were drawn from the Department of Arts Education (English option) and Department of Communication and Language, respectively, from the selected institutions. While Adekunle Ajasin University students served as the experimental group, Ekiti State University students served as the control group. The experimental group was taught by their course lecturer in order to remove Hawthorne effects which could affect the outcomes of the study. The course lecturer taught the course and gave intermittent time for breaks. It was during this break that he played music to lessen the tension, after which he paused the music and resumed to round up the lecture. Students' interests on music listening as a reading strategy were sought. As many students that registered their interest to read the course material given while playing music

via their ear phones, air pods were allowed and they constituted the experimental group. The control group was taught by the course lecturer but no treatment was administered. The instrument for the study was a test extracted from their course material and it was entitled: Reading Achievement Test (RAT); comprising twenty (20) test items. Prior to the administration of the instrument, it was tested on five (5) undergraduates in Ambrose Alli University, Ekpoma, Edo State in order to determine its reliability. The results r- 0.79 shows that the instrument is reliable. The research hypotheses raised were answered using inferential statistics of t-test and Pearson Product Moment Correlation (PPMC).

Results and Discussion

Hypothesis 1: There will be no significant difference between the mean achievement scores of students who engage in music listening as a reading strategy and those who read using the conventional method.

Table 1 shows the difference between the mean achievement scores of students who engage in music listening as a reading strategy and those who read using the conventional method.

Table 1a: Paired samples statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Control	6.6923	52	3.55096	.49243
	Experimental	11.0000	52	3.75735	.52105

Table 1b: Paired samples correlations

		N	Correlation	Sig.
Pair 1	Control & Experimental	52	.082	.562

Table 1c: Paired samples test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Control – Experimental	-4.30769	4.95287	.68684	-5.68658	-2.92880	-6.272	51	.000

Table 1 shows the difference between the mean achievement scores of students who employed music listening as a reading strategy and those who read using the conventional method. The results revealed that students who employed music listening as a reading strategy had better a mean score (M=11.00; SD= 3.75) than their counterpart (M=6.69; SD= 3.55). Given that t = -6.272 which is lesser than the p > .001, the hypothesis therefore implied that the different between the two scores is not statistically significant. Thus, there was no significant difference in the performance of students in discourse comprehension tests and the formulated null hypothesis was retained.

H02: There will be no significant relationship between music listening reading strategy and students' age.

Table 2: Pearson correlation co-efficient showing the relationship between L2 teachers' academic qualification and extent of research awareness on L2 research findings

		Experimental	Age
Experimental	Pearson Correlation	1	.116
	Sig. (2-tailed)		.412
	N	52	52
Age	Pearson Correlation	.116	1
	Sig. (2-tailed)	.412	
	N	52	52

The result in the table above indicated that there is no significant relationship between students' age and students' performances in the achievement test given. The table above showed a PPMC correlation of r= .116 which is lesser than the P value [r= .116, p > .412]. This result implied that learner's age does not have any significant relationship with

their performances in the achievement test given. Thus, the findings confirmed the formulated null hypothesis 2.

Discussion of the Findings

Results on music listening as a reading strategy on discourse comprehension revealed that there was no significant difference in the performance of students in discourse comprehension tests. Though, the result shows that those who were allowed to read and answer the given questions with the artificial atmosphere outperformed the other group as indicated in their mean. This is inconsonance with the findings of Mori, Naghsh and Tezuka (2014) who found out in their empirical studies that listening to music that the subject likes do increase the performance level. In the same vein, the findings of this study is in line with the findings of Singer (2008) and Barker (2008) who reported that music increased the chance students remembered what they had learned, by assisting the recall of information. Binkiewicz (2006) subscribing to this avows that songs are powerful pedagogical tools that enliven a classroom and enhance student learning in an enjoyable manner. It is, however, expedient to mention that the difference is insignificant. Thus, the efficiency of learning is highly dependent on the mental state that the person is in. Music listening aces students' reading through creating an "*artificial atmosphere"* that temporarily suits the mood of the reader. Once the mood is tweaked and dopamine is released, cognition is non-negotiable, that is not to say that the method is better than silent reading.

In the background of this study, it was established that age has a significant relationship with attention management. It was proven that the pre-frontal cortex of the brain is responsible for attention management in human and it develops completely in early 20s for females and late 20s for males. The implication of this to the present study is that females below 20 who employs music listening as a reading strategy would perform poorly, as she could possibly be unable to manage her attention. This study, however, indicated that age does not have any significant relationship with their achievement in the test given.

Conclusion

Reading is the foundation upon which an educational life of a child is built and also, a major determinant of students' success in his/her educational pursuits. Reading exposes one to a window of information and knowledge. Readers at every stage exert conscious effort to improve their reading as new demand is made on their reading ability which conditions him/her to employ certain strategies. One of the strategies often employ by undergraduates when they read on campus is music listening reading strategy. While they read, they play music that sooths their moods. The result of this study confirms that

students who employed this method outperformed their colleagues but the difference is not significant. In the same, the study rejected the claim by some scientists that pre-frontal cortex of the brain is solely responsible for proper attention management. Music could be distractive, as unwary listener may be carried away with the beats or lyrics, but this study revealed that age has little effects or no effects in attention management. There were no noticeable differences between the scores of students based on their age.

Recommendations

On the basis of this study, the following recommendations were made:

- Facilitators should teach their students the best scientifically proven strategies to read texts in order to achieve comprehension.
- Educators at all levels should strive to create an environment of scholarship which favors achievement in cognitive and affective outcomes for their students
- Reading is a complex process. Students should be taught how to read and not be left alone to figure reading strategies out themselves
- Campaign against bad reading habits should be staged.
- Lecturers should always create atmospheres that carters for different academic needs of the learners
- Music could be played before the commencement of the class, since through it, dopamine would be released
- Lecture halls should not be made unnecessarily tensed such that students are enthralled in fear

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