

## The Effect of Relaxing Music on Iraqi Physical Education and Sport Sciences Students' Achievement in English Exam

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تأثير الموسيقى الهادئة على تحصيل طلبة التربية البدنية وعلوم الرياضة العراقيين في امتحان اللغة  
الإنكليزية

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### Abstract

Music has become an important part of our life. In order to address how music affects academic performance of college students, The researcher undertook this small study to search whether the use of relaxing music has an impact on the accuracy of their answers in the English language exam or not. This study was conducted with 40 Second year students studying at College of Physical Education and Sports Science, Al-Qadisiyah University, Iraq. They were divided into two groups, experimental group and control one . The pre-test was conducted for both groups and the results were determined. Then the post-test was conducted for the two groups. The students were given the questions to answer in limited time, with relaxing music playing for the experimental group. As for the control group, they were given the same questions and time, but without music when answering. The researcher applied the T-test to find out the differences, if any, between the two groups. The result showed that there was positive effect of relaxing music on the students' answers in the exam, the experimental group outperformed the control group.

Key words: relaxing music, secondary school students, students achievement

### الخلاصة

أصبحت الموسيقى جزءاً مهماً من حياتنا. من أجل معالجة كيفية تأثير الموسيقى على الأداء الأكاديمي لطلاب المرحلة الثانوية، قام الباحث بهذه الدراسة الصغيرة للبحث فيما إذا كان استخدام الموسيقى الهادئة له تأثير على دقة إجاباتهم في امتحان اللغة الإنجليزية أم لا. أجريت هذه الدراسة على ٤٠ طالب في المرحلة الثانية يدرسون في كلية التربية البدنية وعلوم الرياضة، جامعة القادسية في العراق. وتم إجراء اختبار الكفاءة لإثبات تجانسهم وتكافؤهم. وتم تقسيمهم إلى مجموعتين هما المجموعة التجريبية والضابطة. تم إجراء الاختبار القبلي لكلا المجموعتين وتم

تحديد النتائج. ومن ثم تم إجراء الاختبار البعدي للمجموعتين. تم إعطاء الطلاب أسئلة للإجابة عليها في وقت محدود، مع تشغيل موسيقى هادئة للمجموعة التجريبية. أما المجموعة الضابطة فقد تم إعطاؤها نفس الأسئلة والوقت ولكن بدون موسيقى عند الإجابة. وقام الباحث بتطبيق اختبار (ت) لمعرفة الفروق إن وجدت بين المجموعتين. وأظهرت النتيجة وجود تأثير إيجابي للموسيقى الهادئة على إجابات الطلاب في الامتحان، وتفوقت المجموعة التجريبية على المجموعة الضابطة.

الكلمات المفتاحية: الموسيقى الهادئة، تحصيل الطلبة، طلبة كلية التربية البدنية وعلوم الرياضة

### 1. Introduction

While emotions, thoughts, and actions of individuals music are influenced by, music may have a profound effect on entire communities. A more upbeat mood can be achieved with the use of background music. The physiological, emotional, and cognitive processes of students can be impacted by background music. According to Kuzmich (2010), the engagement with music can have a positive and enduring impact on cognitive function. Music has been shown to enhance memory (Kang, & Williamson, 2014), stimulate cognition (Southgate, 2009), increase attention, provide inspiration and motivation, and facilitate a multi-sensory learning experience (Brewer, 2005; Brunken, Plass & Leutner, 2004). Two negative impacts on focus and concentration could result from listening to music in the wrong way, according to Aktaş and Gündüz (2004). Spending less time listening to music and more time researching is the initial setup.

Younger students tend to do this more often. The second point is that people's critical reading abilities and comprehension of the text are impaired when they listen to music while reading (Aktaş and Gündüz, 2004). The claim that listening to music while reading improves comprehension was rejected by Odabaş et al. (2008). Listening to music while reading, on the other hand, distracts people from the text and makes it harder for them to concentrate on what they're reading, much like other outside stimuli can (Odabaş et al., 2008). Students' cognitive abilities, such as reasoning based on language, short-term memory, planning, and inhibition, are greatly improved through structured music instruction, which in turn improves their academic achievement. It is the first large-scale, longitudinal study to be incorporated into the regular school curriculum, according to the research published in *Frontiers in Neuroscience*. Researchers also discovered that kids' visual and spatial memory were much enhanced after participating in art classes.

## 2. Literature Review and Previous Studies

"Emotional, mental, and physical rhythms are stabilized by soft music, resulting in a profound state of focus and concentration that allows for the processing and learning of vast amounts of content." According to Plato, "music is a moral law" (Brewer 2005). It endows the cosmos with a soul, the mind with wings, the imagination with flight, melancholy with a charm, and everything with life. "The role of soft music in developing or focusing the mind when learning English language words has been the subject of a great deal of research," according to Jones (2005). Other methods in the classroom are suggested by others. It has been proposed that a CD played at a moderate volume can help students unwind and de-stress during computer time, studying, and exams. Low volume is ideal, because it

### 2.1 Previous Studies

Both cognitive and psychological processes may contribute to college students' unique musical perceptions. The fact that music may connect with its listeners by expressing feelings they can identify with demonstrates that it serves a cognitive function that includes communication and self-reflection. According to the findings of the Thomas Schafer study, which was published in 2010 by Schafer and Sedlmeir, 53 students were given the task of listening to six different musical compositions. These pieces were categorized as classical, electronic, rock, rap, pop, and folk. The students were then asked to score each piece based on their level of enjoyment and the reasons behind their rating. The data was analyzed using a regression model, which revealed that people still prefer music as a medium of communication, with self-reflection being the second most important element. These research may have relevance for today's college students, who have a wide range of musical tastes and the reasons behind them. Music obviously served as a medium for their expression and interaction. What someone listens to for fun can tell us a lot about their personality and the way they interact with people. Moreover, in an electroencephalogram (EEG) study, ten college students had their brain activity recorded while listening to music that had won accolades. The results demonstrated that college students' peak brain activities occurred in response to highly rated and easily recognizable songs, suggesting that music recognition plays a significant influence in college students' musical preferences.

More and more people are incorporating music listening into their daily routines. Mr. Kumar tested the hypothesis that students' ability to focus and perform better in class improved after listening to music. The students now

listen to music on a regular basis (Kumar, 2016). Thanks to modern technology, students can easily access and listen to music whenever they want by downloading them from the internet. When they are in class or working on other assignments, most students listen to music. Because of this, we can't help but wonder how productive their study sessions will be. Researchers set out to determine which musical styles help people focus better. In order to gather data for the study, researchers administered questionnaires to 200 MBBS (Bachelor of Medicine and Bachelor of Surgery) students. The results demonstrated that students' concentration levels improved when listening to gentle music, and that listening to classical music increased their IQ; the researchers dubbed this phenomenon the Mozart Effect. The amount of time that students spend listening to music while studying is also recorded by the researchers. We wanted to know what kinds of music people listened to and how listening to music influenced their concentration, so we collected data on that. The article's main takeaway was that, when kids are in the right frame of mind, listening to music can actually improve their concentration. Listening to music while studying did not hinder their brain's efficacy; on the contrary, it helped them perform better in school and be more efficient. The majority of students listen to music while working on any given task, and many parents were worried that this might negatively impact their children's ability to focus and succeed in school. Nonetheless, the results of this study show that it's really not an issue, since listening to music really increases their productivity. By reading this paper, you may better understand the effects of music on students, the advantages of listening to music, and their opinions of music based on survey results, all of which will be useful for your own research into the effects of music on academic performance.

Certain policymakers exhibit hesitance in endorsing music as a subject in educational institutions, contingent upon the concern that educators, administrators, artists, and parents may prioritize musical activities over academic pursuits. Nonetheless, several individuals contend that music should be incorporated into the school curriculum for students. Investigations into this subject demonstrated that music facilitates the enhancement of cognitive abilities and the socio-emotional dimension of discipline (Scripp, 2002). Consequently, it remains ambiguous how music educators and policymakers could contribute to reconciling the apparent false dichotomy between essentialism and instrumentalism. The disparity between the two was examined based on extensive study completed decades ago, which demonstrated a robust and affirmative correlation

between music and learning, thereby substantiating the existence of an alternative interactive learning model. A generative neurological cognitive investigation demonstrates a robust and dependable correlation between music and learning. Music can serve as a mechanism for cultivating socio-emotional development and altering behaviors in educational institutions.

Research conducted by Antony, Vishnu and Gayatri (2018) found out that music played an important role in the academic performance of the students. They found out that 40.5 percent of students listened to music while they studied whereas 60.4% responded that music increases their efficiency, but they lacked concentration when they were studying in silence. They were able to make out that the people who had musical knowledge had more benefits as music had an effective effect on relieving stress. Their research included questions regarding their interest in music and how it helped them to study. Moreover, Naveen et al. (2016) conducted a cross sectional study about the effects of music on concentration and performance of students which showed that 47% of the participants felt that music helped them to concentrate while studying, 29% responded that music helped them keep their mind calm and while the rest did not prefer music as they thought it was distracting. The findings from the research concludes that music has a beneficial effect as it helps in their concentration and can improve the academic performance of students.

As for the current study, the results showed that there is a significant effect of calm music on students' achievement in the exam by comparing the results between the pre- and post-test. The sample's opinion in the experiment was positive and they encouraged the use of music in the classroom during the exam.

## 2.2 The Concept of Stress

Stress is a recognized specific response to imposed demands. It is an adverse human experience stemming from environmental conditions necessitating adjustment and adaptation. Selyer (1956). Imam (1996) defines stress as the generalized, specific response of the body to various pressures that disrupt homeostatic equilibrium, prompting internal defense mechanisms to protect against such disturbances.

When an individual experiences stress, their nervous system activates the organs to prepare for immediate, heavy energy expenditure, compromising long-term bodily maintenance processes. The exact reactions that comprised this response include an elevated heart rate, increased blood pressure, heightened muscle tension, and accelerated respiration, alongside a reduction in digestive and sexual functions. Stress



is the body's response to various demands or threats. Upon perceiving danger whether genuine or perceived the body's defenses activate swiftly in an instinctive process referred to as the “fight-or-flight” response or the "stress response."

### 2.3 Stress and Academic Achievement

The interest in examining psychological stress has heightened due to its effects on individual and public health. Individuals experience crises and stressors resulting from life's demands and societal transformations. Individuals' lifestyles have transformed due to contemporary developments, characterized by enlarged social ties, heightened personal ambition, and intensified competitiveness among individuals. As a result, numerous issues have emerged, leading to various forms of pressure, including social, economic, professional, and intellectual. Stress is the individual's reaction to alterations and external dangers, manifesting as symptoms including worry, tension, and impaired concentration. Psychological stress arises when individuals perceive that the demands of their circumstances surpass their talents, so impairing their capacity to manage them. As a result, individuals recognize their inability to reconcile the demands of the circumstance with their capacity to address it, resulting in an overwhelming sense of tension.

Students are among the most popular populations experiencing stress, often attributed to examinations or assignments. The psychological pressures experienced by students in educational settings are seen as significant challenges that might have detrimental impacts if they surpass the students' capacity for endurance, thereby impacting their achievements and successes. Moreover, it can impact students' psychological and physical well-being, leading to sleep disturbances, diminished concentration, and reduced appetite. Consequently, academic pressures can be a significant cause of stress that results in task incompleteness or aversion to studies. The objective of this study is to examine the impact of stress on academic performance, the variations in stress levels across different variables, and the origins of stress.

### 2.4 Music and Improvement of Academic Performance

Music is a crucial element that enhances the inspirational intelligence of kids, facilitating academic advancement. It exerts a significant emotional influence on pupils' academic achievement. The beneficial influence of music on the population has elevated the number of global listeners. The influence of music was the primary motivation for the

educational sector's adoption of televisions and other audio devices in their offices. Schellenberg (2004) posits that listening to music can enhance intellectual acumen. Furthermore, musical aptitude correlates with general intellect (Lynn et al. 2009). Consequently, it can be posited that music education may enhance both musical aptitude and non-musical skills (Schellenberg 2004). This premise aligns with the concept of "musical aptitude in development," since musical potential is influenced by the quality of environmental factors. Moreover, musical aptitude correlates with enhanced academic performance (Johnson 2000). Music lessons yield a modest enhancement in IQ (Schellenberg 2004) and have minor positive correlations with intelligence metrics.

Schellenberg (2006) suggested that music enhances academic performance, irrespective of documented individual differences in general intelligence. Music is an effective tool for improving spatial-temporal cognition, as evidenced by the work of numerous neuromusicologists. The cognitive capacity to meticulously analyze images and to identify, compare, and develop relationships between patterns and minutiae of a given subject. A child's capacity for foresight is improved by the temporal aspect. Johnson (2017) posited that students who are enrolled in high-quality school music programs attain superior scores on standardized tests in comparison to their peers who are enrolled in schools with inadequate music education programs, irrespective of the socioeconomic status of the school or district. Concentration, physical coordination, symbol identification, and memorization abilities are all required for the completion of these tasks. The children demonstrate enhanced executive processes as a result of these activities, which include the simultaneous analysis of cognitive and affective dimensions, strategic thinking, attention to detail, and play. Music has provided a multitude of students with the opportunity to engage in a variety of learning scenarios that can have a lasting and beneficial effect on the development of young people. According to Armstrong (2006), the marginalization of non-core courses, such as physical education, art, chorus, and instrumental music, has been the consequence of the emphasis on core topics and standardized assessments as the primary indicators of academic achievement.

### 2.5 Statement of the Problem

Sometimes, during the exam, the student is exposed to pressure, anxiety, and psychological tension that will affect his result in the exam. Therefore, in this research, the researcher will try to address this problem by creating a comfortable atmosphere for the student by adding relaxing

music that will keep the student away from stress and put him in an atmosphere of comfort and reduce stress.

### 2.6 Questions of the Study

This study, therefore, seeks answers to the following question:

What are the effects of relaxing music on the accuracy of the students answers in the English language exam.

### 2.7 Hypotheses of the Study

Exam performance is unaffected by listening to relaxing music.

### 2.8 The Purpose of the Study

The aim of this paper is to search whether the use of relaxing music impact on the accuracy of students answers in the English language exam or not. This will show the positive or negative effects that relaxing music elicits and make recommendations for use in the classroom.

### 2.9 Significance of the Study

There is a great significance to this study. If there are more things that can be done in the classroom that are proven to help benefit student learning, teachers should be actively trying to incorporate those things into their teaching and classroom environment. Relaxing music allows students to relax and relieve anxiety and stress during the exam period.

## 3. METHODOLOGY

This research is experimental and aims to conduct a scientific investigation to determine whether there is an effect of the independent variable (relaxation music) on the dependent variable (students' achievement in the English language exam) and to prove this statistically if there is an effect.

### 3.1 Participants

This study was conducted with 40 second-year college students enrolled at the College of Physical Education and Sports Science, Al-Qadisiyah University, Iraq. The participants were selected because they were members of the researcher's classroom and were readily accessible. All individuals were male, aged between 20 and ٢١ years.

### 3.2 Instruments

The participants were selected out of 120 students based on their performance on the Oxford Quick Placement Test (OQPT). Based on the results of the test, the students who scored(60-68%) They were chosen as a sample for the research., Later the researcher divided them into two equal groups of 20 students- control and experimental groups. The two groups were tested on the same questions that are part of their curriculum, and the questions varied between essays and multiple choice. The two groups were given the same amount of time. The test results were determined and the



statistical t-test was used to determine the differences between the two groups.

### 3.3 Procedure

The present study was accomplished over a period of around two weeks. In the first week as mentioned earlier, "Oxford Placement Test (OPT) was given to them. In the second week the participants were assigned into two equal groups: experimental and control group. The two groups were given the same sample of questions and the same time limit. In the experimental group relaxing music was played for students while they were taking the exam. While the control group underwent the same test, but without playing music to them.

### 3.4 Data Analysis

Following the collection of the necessary raw data, mean scores, standard deviations, and standard error of measurements were displayed based on the replies of the participants in the two situations, namely, with and without music. The comparisons of the groups' various conditions were then shown using a T-test. To demonstrate the differences between the conditions of the two groups at the start and completion of the job, a T-test was conducted. Following comparisons, the information and findings are displayed in the paired sample test tables that follow.

Table (1) Pre and post test results

Control		N	M	SD	T	Sig
	Before	20	5.10	3.19	-5.013	0.00
	After	20	7.30	3.32		
Experimental	Before	20	3.50	1.93	-2.89	0.009
	After	20	4.45	1.43		

The results shown in Table (1) showed that there were statistically significant differences at a significance level of 0.05 in the post-application of the control and experimental groups on the scale of the effect of relaxing music on students' achievement in the exam, as all the significance level values were less than 0.05, which indicates the existence of statistically significant differences between the experimental group and the control group in the post-application. Through the arithmetic averages shown in the previous table, it is clear that the differences are in favor of the post-application in the experimental group, and this result indicates the effectiveness of the existing program.

## 4. Discussion of Results

The results revealed that there were statistically significant differences at a significance level of 0.05 between the experimental group before and after the experimental group on measuring the effect of relaxation music on students' answers in the exam. The results showed that the differences were in favor of the experimental group after, and this result indicates an improvement in students' answers in the exam when relaxation music was played during the exam time, which indicates the effectiveness of the program. The results showed that there were statistically significant differences at a significance level of 0.05 in the post-application of the control and experimental groups. The results showed that the differences were in favor of the post-application in the experimental group, and this result indicates the effectiveness of the calm music program. As for answer to the researcher's question, the results showed that there is a significant difference between the scores in the control and experimental groups. Due to the normal distribution of scores, parametric tests were used to examine research questions and hypotheses.

##### 5. Conclusions

Within the scope of this study, the researcher endeavors to demonstrate whether or not the utilization of soft music has an effect on the accuracy of the responses that students provide on the English language examination. During the time that they were listening to soft music, students exhibited positive conduct, as indicated by the data acquired in this study, which demonstrates that the incorporation of soft music into an educational classroom has favorable aspects. Additionally, research demonstrated that the use of gentle music with the purpose of fostering a positive experience for kids, fostering attentiveness, fostering a positive attitude, and creating a pleasant learning environment were all successful. In addition, it suggests that you continue to listen to gentle music while you are taking the exam. On the other hand, music has the ability to divert the attention of the kids. Learners could get overly enthusiastic or sensational, or they might develop a habit of using it. In the end, music, particularly gentle music, can be a means of overcoming the challenges of concentrating and paying attention in environments that are filled with a multitude of noises and additional calls for attention.

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