



The Effects of Listening to Music Just Before Reading Test on Students' Test Score

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Abstract. In this study the researcher examined the effect of music on reading comprehension played just before the test. Because the emotional consequences of music listening are evident in stress and anxiety removal, it was used as a tool to pacify the mind of the tasters and boost their memory and the related cognitive processes. Experimental group did well with the mean score of ($\bar{x} = 17.76$) and control group ($\bar{y} = 11.1$). This study confirmed that using multimedia devices such as music can not only improve a skill in TEFL but also remove external interferer such as stress.

Keywords: Music, Reading test

1. INTRODUCTION

The word 'test' itself connotes a kind of feeling that is mostly conceptualized as a kind of anxiety to the students. We have experienced such a feeling in different stages of our life that may be due to the importance of the substantial and decisive role of the test in our future. What is studied and done before the day of examination is fully dependent on the side of the student but in the day of the exam and to be precise the test situation can have some negative effects on the testees that are to some extent inevitable. Some of these environmental factors are classroom light, the familiarity of the testee with the supervisors and the place of examination, the kind of chairs and desks, the exam time, etc. These considerations will obviously play a big role in students' output in the day of examination. What is of great importance to the testees and is called a kind of psychological barrier in testing situation is stress that can decrease concentration and memory retrieval.

The word stress itself has got different meanings but what we normally mean is the negative aspect of it, called debilitating stress. It is a kind of stress, in contrast with facilitative, that interferes with your daily activities and events. It will prevent you from going to work, going to school, or even sleeping. In other categorization according to APA (American Psychological Associations) website (Miller, Smith, & Rothstein, 1994) stress management can be complicated and confusing because there are different types of stress — acute stress, episodic acute stress, and chronic stress — each with its own characteristics, symptoms, duration and treatment approaches. Acute stress is of the focus of the researcher, which is the most common form of stress. It comes from demands and pressures of the recent past and anticipated demands and pressures of the near future. Acute stress is thrilling and exciting in small doses, but too much is exhausting. A fast run down a challenging ski slope, for example, is exhilarating early in the day. That same ski run late in the day is taxing and wearing. Skiing beyond your limits can lead to falls and broken bones. By the same token, overdoing on short-term stress can lead to psychological distress, tension headaches, upset stomach and other symptoms.

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Fortunately, acute stress symptoms are recognized by most people. It's a laundry list of what has gone awry in their lives: the auto accident that crumpled the car fender, the loss of an important contract, a deadline they're rushing to meet, and their child's occasional problems at school and so on.

Because it is short term, acute stress doesn't have enough time to do the extensive damage associated with long-term stress. The most common symptoms are:

- Emotional distress — some combination of anger or irritability, anxiety and depression, the three stress emotions.
- Muscular problems including tension headache, back pain, jaw pain and the muscular tensions that lead to pulled muscles and tendon and ligament problems.
- Stomach, gut and bowel problems such as heartburn, acid stomach, flatulence, diarrhea, constipation and irritable bowel syndrome.
- Transient over arousal leads to elevation in blood pressure, rapid heartbeat, sweaty palms, heart palpitations, dizziness, migraine headaches, cold hands or feet, shortness of breath and chest pain. (Guzzetta, 1989)

Acute stress can crop up in anyone's life, and it is highly treatable and manageable. One of the fully-supported ideas in stress management is 'music therapy'. "Music Therapy" as some people refer to it uses music to promote healing and improve one's overall emotional well-being (Clark, et al., 2006). This may include listening to music, playing a musical instrument, singing along to music, and using guided imagery with music. Research indicates that music stimulates the production of opiates and endorphins, the "feel good" hormones in our bodies. This stimulation can result in improved blood flow and blood pressure. The soothing power of music is well-established. It has a unique link to our emotions, so can be an extremely effective stress management tool.

In this study the researchers tried to use the option of exposing testees to music just before the reading test came up. It was to analyze whether letting students relax before the start of a test could improve their score test or not. The following questions were answered:

Q1: Does listening to music before reading test improve students' test score?

Q2: Does listening to music before reading test decrease their test anxiety?

2. METHOD

In this study the quasi-experimental design was adopted. 30 students of intermediate studying Top Notch 2 A, ranging 18-30 years old, were chosen. They were tested a proficiency test to confirm the homogeneity level of the students. They were, then, divided randomly into two groups of 15. In one group which is the experimental one, students were given the standard TOEFL reading test just after listening to relaxing music. In another group this factor were omitted and the test was taken. Independent Samples T-Test was adopted to compare means for two groups. The assumption is to ascertain that each population follows a normal distribution.

A Test Anxiety Inventory was used to show that students were stressful or not and what was the source. It is to mention that the playlist was chosen based on <http://earthtones.org/relieve-stress-with-music/> website.

3. RESULTS AND DISCUSSION

Test Anxiety Inventory Analysis showed that high level of anxiety was created by 4 main sources of it and it is expressed in 3 ways. The sources are according to its usage: Concerns about your own self-image, Concerns about your future security, Concerns about how others will view you if you do poorly, and the least selected one, Concerns about not being prepared for a test. This was represented through General test-taking anxiety, Thought disruptions, and Bodily reaction. These demonstrated that students mainly are stressed because of what outcome should be and mostly this feeling is not visible be impressive in their behavior.

Statistical analysis was depicted as follows:

Table 1. Score list in two groups

X: Class A(experimental group) scores	15, 16, 20, 19, 18, 14, 20, 19.5, 16, 19, 19.25, 16.75, 17, 18.5, 20,
Y: Class B(control group) scores	13, 20, 19.5, 12.5, 7, 9.25, 11.75, 14, 12, 5.5, 3.25, 4.75, 8, 17, 9

$$\bar{x} = 17.76$$

$$S_1^2 = \frac{\sum_{i=1}^n (x_i^2 - \bar{x})^2}{n - 1} = 3.71$$

$$\bar{y} = 11.1$$

$$S_2^2 = \frac{\sum_{i=1}^n (y_i - \bar{y})^2}{n - 1} = 29.125$$

$$\begin{cases} h_0: \mu_1 - \mu_2 \geq 0 \\ h_1: \mu_1 - \mu_2 \leq 0 \end{cases}$$

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{\left(\frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1+n_2-2}\right)}} \times \frac{1}{\left(\frac{1}{n_1} - \frac{1}{n_2}\right)} = 8.05$$

According to t distribution critical values table, T_0 is part of $(-\infty)$ and $T_2=8.05$. Since $T_0=4.5$ in the statistical analysis the H_0 hypothesis is rejected.

$\alpha=95\%$ $1-\alpha \rightarrow \mu_1 > \mu_2$ so it shows with .05 of possibility through $1-\alpha = .05$ that the experimental group outperformed the control group.

4. CONCLUSION

Music, a soothing device permanently used to make people calm and focused, was adopted in this study to test *the effects of listening to it just before reading test on students' test score*. The research demonstrated that students are stressful before and during the test and this technique, using music device, is helpful and can change the results expected from teachers. It is worth trying to accompany multimedial devices in ELT situations in different context and different age and sex groups.

REFERENCES

- [1] Clark, M., Isaacks-Downton, G., Wells, N., Redlin-Frazier, S., Eck, C., Hepworth, J. T., et al. (2006). Use of Preferred Music to Reduce Emotional Distress and Symptom Activity During Radiation Therapy. *Oxford Journals(Journal of Music Therapy)* , 43 (3), 247-265.
- [2] Guzzetta, C. (1989). Effects of relaxation and music therapy on patients in a coronary care unit with presumptive acute myocardial infarction. *Heart & Lung : the Journal of Critical Care* , 18 (6), 609-616.
- [3] Miller, L. H., Smith, A. D., & Rothstein, L. (1994). *The Stress Solution: An Action Plan to Manage the Stress in Your Life*. New York: Pocket Books.