The effects of music on achievement, attitude and retention in primary school English lessons

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Abstract

The aim of this study is to determine the effect of teaching English vocabulary to 5th graders through music on their achievement in vocabulary, attitudes towards English course and retention of new words. While the students in the experimental group (n=28) were taught new vocabulary in the English syllabus through songs composed by the researchers, the students in the control group (n=28) were taught new vocabulary using the methods in the current English education program. The study was implemented for 12 weeks. At the end of the study, English Vocabulary Test developed by Köksal (2012) and attitude scale towards English course were administrated. A month later English Vocabulary Test was given to the students again as a retention test and data obtained were statistically analyzed. The experimental group in which music was utilized outscored the students in the control group both on the English Vocabulary test and English Vocabulary Retention test and also on the attitude scale.

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1. Introduction

The most important feature that makes human beings superior to other living beings is that they are the best learners and can use the things they have learnt by keeping them in their mind, which is only achieved thanks to memory. That is why memory can be called the depot of the brain or brain library. Not very long ago it was considered that the brain stores knowledge by preserving its original form, but now this way of thinking has changed, and with the birth of information processing theory, a new process in the conceptualization of learning has started (Köksal, 2012). In other words, the processing of information is emphasized in learning.

Most of learning is composed of knowledge stored subconsciously; creation of a multi-stimulant atmosphere in the classroom will both increase learners’ motivation and contribute to subconscious learning. In this case, the best learning environment is the one that includes music, drama and kinesthetic elements and thus which is rich in stimulants, which address to multiple senses and support positive emotions since these elements accelerate...
subconscious learning (Cengiz, 2004).

As music and its sub-components: rhythm, melody, stress and tone are means that activate different parts of the brain and as it was demonstrated music that is effective in encoding information in the long term memory, it stands out as an effective means of teaching vocabulary.

In recent studies of the nature of human mind showing how it develops musical talents and intelligence have had revolutionary effects on the understanding of teaching and learning. Don Campbell in his book called ‘The Mozart Effect for Parents’ (2003) argues that music contributes to the developmental areas such as increasing intellectual potential of language, study habits, reading, math, fact-memorizing, visual and aural memory. The effect of music on brain’s processing mechanism has brought its use in language teaching up as a plausible method. Empirical studies indicate convincingly that music and language should be incorporated in teaching (Palmer and Kelly, 1992; Mora, 2000; Medina, 1990; Cengiz, 2004). Thanks to the musical elements students can encode words with deep affective and contextual labels, which stimulate a realistic, meaningful, and logical environment. In this way, students can develop positive attitudes, self-perceptions, and cultural approval and thus they process new input actively, enabling them to develop skill to infer the patterns of new language. The universality of music can convert the non-natural classroom atmosphere into a “real” experience and make new information meaningful by appealing to students’ interests (Stansell, 2005).

It is argued that music and language go hand in hand to serve a common aim of human beings: communication. Due to the interwoven pattern of relation between musical and linguistics areas of mind, music aids in learning and storing new vocabulary and phrases. For a better understanding of language, using music is recommended as it enables learners to comprehend word stress, develop attention span, anticipation skill, and memory especially when songs and words counterpart in terms of stress and accent (Stansell, 2005; Šišková, 2008; Volin, 1997). Building on these approaches, the aim of this study is to investigate whether the use of music in English classes of 5th graders has effect on students’ achievement, retention of what they learn and attitudes towards the subject.

2. Methodology

In this study, a pre-test and post-test experimental design with a control group was used to determine the effects of teaching English vocabulary items on students’ achievement and retention of new vocabulary and attitudes towards English classes. Two different but equal level classes from the same school were randomly assigned as the control and the experimental group (n=28+28). While the students in the experimental group were taught the new words in the English lesson through songs, which were composed in easy rhythms and melodies by the researchers, the students in the control group were taught the same new words with the methods in the current education program. No separate lesson hour was allocated to vocabulary teaching in both groups. At the end of the instruction period (12 weeks) English Vocabulary Test and Attitude Scale for English developed by Köksal (2012) were administrated to both groups. One month later, English Vocabulary Test was re-administrated to assess retention of new words. The data obtained at the end of the implementation were submitted to statistically analysis.

3. Results

As a result of the statistical analyses conducted at the end of the study, the following results were found:

| Groups            | N   | Pre-Test x | Pre-Test Sd | Post-test x | Post-test Sd | Achievement x | Achievement Sd | t    | P   |
|-------------------|-----|------------|-------------|-------------|--------------|----------------|----------------|------|-----|
| Experimental Group| 28  | 14,53      | 6,89        | 31,92       | 17,4         | 6.12           | 17,4           | -    | .006|
| Control Group     | 28  | 15,14      | 6,42        | 24,14       | 9,0          | 7.73           | 9,0            | 4,45 | 2,89|
When Vocabulary Test post-test mean scores of the experimental and control groups in Table 1 are examined, it is seen that there is a certain amount of increase in both groups. But, when the increases in both groups are examined, it is seen that achievement scores of the experimental group is higher compared to those of the control group (p<.05).

Table 2. Comparison of attitude scale post-test scores

| Groups          | N  | X   | Sd   | P     |
|-----------------|----|-----|------|-------|
| Experimental Group | 28 | 91.86 | 6.56 | .001  |
| Control Group   | 28 | 77.79 | 14.91|       |

According to Table 2, there is a significant difference between the experimental and the control groups in terms of their post-test mean scores on the Attitude Scale (p<.05).

Table 3. Comparison of vocabulary retention test scores

| Groups          | N  | X   | Sd   | P     |
|-----------------|----|-----|------|-------|
| Control Group   | 28 | 17.46 | 6.76 |       |
| Experimental Group | 28 | 29.86 | 6.10 | .001  |

As it can be seen in Table 3, Vocabulary Retention mean scores of the experimental group is significantly higher than the control group (p<.001).

4. Discussion and conclusion

The result of the study indicates that teaching new vocabulary through music has significantly increased achievement in English vocabulary learning, attitudes towards English course and retention of new vocabulary of the students in the experimental group compared to the control group.

The result of the study is in parallel with some studies on the use of music in language teaching (Schuster and Mouzon, 1982; Gfeller, 1983, and Šišková 2008). Furthermore, Medina (2000) states that "in the psychological research, music and its subcomponent, rhythm, have both been shown to benefit the rote memorization process. When various types of verbal information (e.g., multiplication tables, spelling lists) have been presented simultaneously with music, memorization has been enhanced (Šišková 2008).

In an experimental study carried out in Hong Kong, it is stated that vocabulary memorization levels of individuals who get interested in music and/or play a musical instrument at early ages increases 16% compared to others (Cengiz, 2004).

In a study by Šišková (2008) in which using music in teaching English vocabulary was studied, it was concluded that using music in teaching vocabulary greatly effective when students’ favorite songs were chosen. The author reports that the students were more focused and more interested when the song was their favorite.

In a study by Cengiz (2004) in which brain based learning activities that involved use of music were used, it was determined that music had an effect on students’ achievement levels. In another study which is based on brain based learning in English lesson and which involves learning with music (listening to music and creating songs) (Baş,
2010), it was determined that the activities carried out in the experimental group had positive effects on students achievement and attitudes towards the course.

The use of music in learning enables learners to open all memory channels while learning and thus the more channels are employed while learning the more learning is increased. Information encoded in different memory systems is remembered more easily as it can be retrieved from any possible memory system. This can also be understood from the fact that students who can store new vocabulary in different components of memory thanks to the use music can remember them more easily.

In sum, it was concluded that teaching English vocabulary to primary school 5th graders through music enabled students to keep new vocabulary in their minds more easily and more meaningfully and the method applied in the experimental group is more effective compared to the one used in the control group and that new vocabulary taught with music is learnt better and stored for longer period of time. Following from these, it is considered that in English course employing musical activities tuned to age groups in the first stage of primary education will be useful. As it is also emphasized in Multiple Intelligence Theory, using another intelligence area like musical intelligence to develop an area of intelligence will have positive effects. Finally, it is argued that incorporation of music as a supplementary element in vocabulary teaching in primary school English course program will be of great contribution to the learning and longer retention of new vocabulary by primary school students.

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