The Impact of English Songs to Enhance Learning Achievement for Students With Unequal Cognitive

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The Southeast Asian Conference on Education 2024
Official Conference Proceedings

Abstract
The objectives of this study were to: 1) compare the learning achievement of students between pre-test and post-test scores using English songs 2) Identify effectiveness after using English songs. The population in this study were 200 students in Sichuan Yibin Vocational Technical School in semester 2/2023. The sample of this research were 54 students selected by Chung TeFan’s 27% calculation technique. The research instruments included: 1) Three English songs’ materials 2) An achievement test paper. The statistics to use in this research included: 1) Dependent t-test 2) Effectiveness index. The results found that 1) the post-test scores were higher than the pre-test scores with statistically significant difference at the .05 level. (t=80.45, p=0.00). 2) The effectiveness of using English songs was 0.7363, in other words, students had higher post-test scores of 73.63 percent of cognitive score improvement.

Keywords: English Songs, Learning Achievement, SDGs, Unequal Cognitive
Introduction

Background of Statement

According to the state of global education, Sustainable Development Goals (SDGs) proposed by the United Nations. The goal 4 is Quality Education. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Ferguson and Roofe, C.G. (2020) There is growing international recognition of Education for Sustainable Development (ESD) as an integral element of quality education and a key enabler for sustainable development. Both the Muscat Agreement adopted at the Global Education for All Meeting (GEM) in 2014 and the proposal for Sustainable Development Goals (SDGs) developed by the Open Working Group of the UN General Assembly on SDGs (OWG) include ESD in the proposed targets for the post-2015 agenda. The proposed Sustainable Development Goal 4 reads "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" and includes a set of associated targets.

Every people need to equally access to education. This is the goal of China's educational efforts, but the reality is unequal. Among the problems of unbalanced regional education development, the educational resources in eastern and western China are extremely unbalanced. Feng yan (2019) In terms of schools, schools are divided into national focus, and ordinary schools, as well as vocational secondary schools, while in good schools, they are divided into important classes and ordinary classes according to their academic progression or admission results. Teachers in the same class will also treat students with different grades differently. Such behavior can cause low score students to lose confidence and interest in learning. Zhu yumin (2022) Looking at the teaching process in our country, we can see that although the independent learning method has been promoted for many years, but the traditional education model, that is, the cramming teaching model more or less restricts the innovative development thinking of young students, most students are limited to the dogmatic development of traditional thinking, do not know how to draw inferences, cannot be used flexibly, this lag makes our education present a complete institutionalization, modeling, less vitality and motivation, this problem, It can be said that it is a stubborn stumbling block on the road of education in our country. Wang lei (2020) In the process of basic education in China, we are always pursuing the quality of education and teaching, and through centralized teaching, the use of examinations to evaluate students' learning and the quality of education and education, which greatly limits the characteristics of students themselves and ignores the problem of quality education. Liu Jie (2019).

Purpose

Because language and music have many commonalities, the role of English songs in English teaching has been valued by more and more English educators. Many educators and linguists at home and abroad have devoted themselves to this topic, and nowadays, English songs are gradually entering English teaching classrooms and have achieved some results. Wangi, W., Khotimah, A. N., & Pradana, R. (2017) However, it has not been promoted in the whole English teaching. Therefore, in the research, combined with the main characteristics of vocational school students, this paper adopts the method of combining theory and practice to explore the feasibility and effectiveness of English songs in teaching. Based on the United Nations' SDGs 4 on equitable education, taking students from Yibin Vocational Technical School as an example, in this paper, this research uses an edutainment teaching technique by
use English songs to improve the English scores of the low achievement students. The researcher would like to focus on the following research questions:

1) Have validity of the songs for using to English teaching?
2) How is the difference in achievement scores before and after using English songs?
3) How about the effectiveness of achievement scores after using English songs?

**Research Objectives**

1) To study about the validity of the songs for using to English teaching.
2) To compare learning achievement between pre-test and post-test scores.
3) To study the effectiveness.

**Research Hypothesis**

The students studying through English songs for improving achievement scores will have higher Post-Test Learning Achievement Score than the Pre-Test.

**Conceptual Framework**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of English songs for English Teaching</td>
<td>To study about the validity of the songs for using to English teaching.</td>
</tr>
<tr>
<td></td>
<td>The student’s achievement scores after using English songs.</td>
</tr>
<tr>
<td></td>
<td>The effectiveness of achievement scores after using English songs</td>
</tr>
</tbody>
</table>

Figure 1- Research framework for the improvement of Achievement scores of students.

**Definition and Scope of the Study**

The study of teaching English songs to improve the English performance of low score students can be defined as an educational study to explore the methods and effects of improving the academic performance of students with relatively low English academic performance by using English songs as an educational tool. The scope of the study includes the following aspects:
Teaching Methods: The research will focus on different teaching methods using English songs, such as lyrics analysis, song creation, song singing, etc., to determine which method is the most effective for poor students' learning.

Student Groups: The study will target students with poor score English learning, including differences in age, language ability and subject ability.

Academic Performance: The study will measure the improvement of students' performance in English subjects, including improvements in listening, speaking, reading, and writing.

In short, this study aims to explore the methods and effects of improving poor score students' English learning performance through music education methods to help improve their performance in English subjects.

Definition of Keywords

1. English Songs
The three instructional songs used in the study were: Modern Pop Music. It originated in the 19th century and developed rapidly in the 20th century. The popular music of the West, especially the developed countries of Europe and the United States, occupies an important position in the world, and the United States is the most developed country in the world for popular music, and it is also the main birthplace of popular music. Nowadays, the form of popular music in various countries around the world is basically developed based on American popular music. Pop music has a charm that appeals to a wide audience and is a music for everyone of all ages.

2. Learning Achievement
In modern society, education is a crucial issue, which involves the inheritance and continuation of wisdom and knowledge accumulated by mankind over thousands of years. Students' academic achievement is one of the important indicators to evaluate the quality of education, and its level is not only related to the development and future of individuals, but also involves the prosperity and development of the country. Therefore, the analysis and evaluation of students' learning achievement is a crucial issue. The analysis and assessment of student learning achievement needs to consider many factors. First, it is necessary to comprehensively evaluate students' performance in the learning process, including students' grades, classroom performance, experimental operations, and other aspects. Secondly, it is also necessary to consider the comprehensive quality assessment of students, such as moral character, health status, learning attitude and personality characteristics. Finally, the evaluation should be made based on factors such as the resource environment and family background of the student to accurately understand the student's learning achievement.

3. SDGs
The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go together with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities
for all. Access to quality education is fundamental to improving people's lives and achieving sustainable development. Countries have made significant progress in increasing access to education at all levels and in increasing enrolment, especially for girls. Basic literacy and numeracy skills have improved considerably, but more effort and greater progress are needed to achieve the goal of education for all. For example, the world has achieved gender parity at the primary level, but few countries have achieved this goal at all levels of education.

4. Unequal Cognitive
Typically refers to differences or disparities in cognitive abilities among individuals or groups. Cognitive abilities encompass various mental processes such as perception, attention, memory, reasoning, problem-solving, and decision-making. When we say there are "unequal cognitive" aspects, it implies that some individuals or groups may have strengths or weaknesses in certain cognitive domains compared to others. These differences can arise from various factors including genetics, upbringing, education, environment, health, and socio-economic status. Recognizing and understanding these differences is important in various fields such as education, psychology, and healthcare, as it can inform interventions and policies aimed at addressing disparities and promoting equal opportunities for all individuals to reach their cognitive potential.

Significance of the Study
This paper mainly conducts an in-depth exploration and analysis of the ways and means of applying English songs in English classroom teaching in vocational school and selects 54 students with the lowest English scores as research objects. Its main purpose is to analyze the teaching results of using English songs in the classroom through empirical research, and at the same time, to improve the interest of poor scores English students in learning English, and to effectively find better ways and ways to apply English songs, so as to improve the performance of poor scores English students, promote the educational equity policy of the United Nations SDGs, and achieve better results in the process of development. The main implications of the study of this topic are as follows: 1. Stimulate the interest of lowest scores students in learning English. The greatest motivation for learning is interest, and interest is the best teacher, which can make students actively understand different things, and at the same time actively participate in them. When we use more direct and visual teaching, we can fully attract their attention. If they are taught in a mechanical way, such as reciting words that need to be mastered, they will not produce better learning results. English Song Teaching uses the English song teaching mode of listening and singing, effectively integrates language and situation, presents a vivid and lively classroom learning atmosphere, allows them to learn in a more pleasant state, and can fully activate the psychological internal drive of their learning, which allows students' brains to show an active state and can fully devote themselves to learning and exploration, so as to obtain twice the learning effect with half the effort. Once students have a strong interest in English, they will be willing to engage with it. 2. Reduce the pressure of lowest scores students' English learning and improve the learning effect. The way to perfectly display the language of the human soul is music. Appreciation of music can effectively prevent boredom and boredom caused by repeated exercises and can also reduce students' tension and anxiety when learning English, it can also reduce students' fear, which can help students relax in learning English knowledge, and it is not easy to develop fear. In the process of implementing the English curriculum, teachers use music and songs to comprehensively train students' listening, speaking, reading, and writing skills, to improve their ability to use English.
Research Methodology

Research Design

The research design was conducted according to the following structure in the objective of the research; it has been moving with steps as flowing:

The researcher used a quantitative approach in experimental design for conducting this study. The data was collected in a quantitative or numerical form derived from the test, and the researcher used a pre-test-post-test design. An illustration of the design is as follows:

- **Group:** O1 \( x \) O2
- **O1** = Measurement of the pre-test score
- **X** = English songs to enhance learning achievement
- **O2** = Measurement of the achievement of the post-test score

The population in this study was the students in Sichuan Yibin Vocational Technical School in semester 2/2023 about 200 students. The sample of this research was 54 students. They were the worst-scores of the 200 students. They were selected by Chung TeFan’ technique. The ability to classify tests (value r) with 27% technique or Chung TeFan's method.

Research Materials

The classroom English songs used in this experiment selected 3 English songs about occupation, which are suitable for vocational school students in industrial vocational and technical schools. These 3 English songs, the language difficulty is moderate, the tune is bright and smooth, the repetition rate of the lyrics is relatively high, which is convenient for students to master, learning these songs can not only consolidate the knowledge points, but also expand because of the original knowledge.

In the current study, the researcher created the lesson plans for three weeks to plan what and how to teach the students each week.

According to the course description, the study was divided into two parts, the survey test phase and the song teaching experimental phase, for a total of 3 weeks, with two lessons per week, lasting one month. The details of each week are provided below:

**Week 1:**
- The pre-test test is the first English song, then the first English song teaching, and finally the first English song after the test.

**Week 2:**
- The pre-test test is the second English song, then the second English song teaching, and finally the second English song after the test.

**Week 3:**
- The pre-test test is the third English song, then the third English song teaching, and finally the third English song after the test.

Teaching Process:

**Step 1:**
- The researcher studied theories of English conversation and attitude measurement to develop the questions in the pre-test, post-test.
Step 2: The pre-test, post-test was reviewed by the researcher’s advisor and other experts in the field.

Step 3: The pre-test, post-test was piloted with 54 students.

Step 4: 54 students were selected from the 200 students, in school of Yibin Industrial Vocational and Technical School in Sichuan Province., China, were assigned to complete the pre-test. The test time was approximately half an hour.

Step 5: The researcher created the lesson plan using English songs improve the low scores students. This lesson plan was designed for four weeks and approved by the researcher’s advisor and experts in the field.

Step 6: The researcher ran the class based on the lesson plan. The students were taught English songs for four weeks. After that, they were assigned to complete both the post-test. The test time was approximately half an hour.

Research Results

1. Evaluation of English songs teaching to enhance learning achievement of low score students, China from three content experts.

The 10 items of evaluation consist of the form issued by three contents experts. A 5-point rating scale is utilized in this section to represent the content experts’ opinion. Each criterion rating is identified as illustrated in Table below:

<table>
<thead>
<tr>
<th>Evaluation Items</th>
<th>X</th>
<th>S.D.</th>
<th>Result Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consistency between content and learning objectives.</td>
<td>5.00</td>
<td>0.00</td>
<td>Excellent</td>
</tr>
<tr>
<td>2. The content is interesting.</td>
<td>4.67</td>
<td>0.58</td>
<td>Excellent</td>
</tr>
<tr>
<td>3. Content and activities are appropriate for learners.</td>
<td>5.00</td>
<td>0.00</td>
<td>Excellent</td>
</tr>
<tr>
<td>4. The amount of content in each activity is appropriate.</td>
<td>5.00</td>
<td>0.00</td>
<td>Excellent</td>
</tr>
<tr>
<td>5. Content sorting is appropriate.</td>
<td>4.67</td>
<td>0.58</td>
<td>Excellent</td>
</tr>
<tr>
<td>6. Content accuracy.</td>
<td>4.67</td>
<td>0.58</td>
<td>Excellent</td>
</tr>
</tbody>
</table>
7. The language used in the content is appropriate for the learners. | 5.00 | 0.00 | Excellent
---|---|---|---
8. Activities are consistent with the content. | 5.00 | 0.00 | Excellent
---|---|---|---
9. There is a presentation format to stimulate the learners’ interest. | 5.00 | 0.00 | Excellent
---|---|---|---
10. The overview of the content is complete. | 5.00 | 0.00 | Excellent
---|---|---|---
**Total** | **4.87** | **0.23** | **Excellent**

From Table 1, Results of evaluation of using English songs to enhance learning achievement, China by three content experts. The overall quality was excellent level (\( \bar{X} =4.87, \text{S.D.} = 0.23 \)). When considering each item, it was found that consistency between content and learning objectives, the language used in the content is appropriate for the learners, the amount of content in each activity is appropriate. There is a presentation format to stimulate the learners’ interest. Activities are consistent with the content and the overview of the content is complete were excellent level (\( \bar{X} =5.00, \text{S.D.} =0.00 \)), respectively.

2. The efficiency of using English songs to enhance learning achievement of vocational scores lowest students.

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students</td>
<td>54</td>
</tr>
<tr>
<td>P1 (Summation score of pre-tests)</td>
<td>10668</td>
</tr>
<tr>
<td>P2 (Summation score of post-tests)</td>
<td>14547</td>
</tr>
<tr>
<td>Total (Full scores multiplied x Number of students)</td>
<td>5400</td>
</tr>
<tr>
<td>Effectiveness Index (E.I.)</td>
<td>0.7363</td>
</tr>
<tr>
<td>Cognitive improvement (%)</td>
<td>73.63</td>
</tr>
</tbody>
</table>

From Table 2, the score of pre-tests was 10668, and the score of post-tests was 14547, which indicated a substantial improvement upon the English songs to enhance learning achievement on the low scores’ vocational students. The result revealed that the value of Effectiveness Index (E.I.) as 0.73 or calculated as 73 percentage. To summarize, English songs can enhance learning achievement of vocational scores lowest students.

3. Compare the learning achievement of students between pre-test and post-test scores using English songs.
Table 3 - Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1: Ost - Pre</td>
<td>71.8333</td>
<td>6.56103</td>
<td>.89284</td>
<td>70.0425 to 73.6241</td>
<td>80.455</td>
<td>53</td>
<td>.000</td>
</tr>
</tbody>
</table>

*The mean difference is significant at the 0.05 level.

The table 3 shows the result of the comparison between the pre-test and the post-test found that after using English songs improving, the post-test achievement score was higher than the pre-test score level at a statistically significant level of 0.05 (t=80.455, p=.000).

**Summary of the Results**

Results of evaluation efficiency of using an edutainment teaching technique by use English songs to improve the English scores of the low achievement students. The P1 score of the pre-test was 10668 points, and the P2 score of the post-test was 14547 points, indicating that use English songs has a great improvement in improving to improve the English scores of the low achievement students. The results show that the effective index (E.I.) is 73.63%. To sum up, using an edutainment teaching technique by use English songs to improve the English scores of the low achievement students’ concept is formulated in accordance with Chinese standard 0.5 for the learning performance of vocational school.

Results of evaluation of using an edutainment teaching technique by use English songs to improve the English scores of the low achievement students by three content experts. The overall quality was excellent level ($\bar{X}$=4.87, S.D. = 0.23). When considering each item, it was found that consistency between content and learning objectives, the language used in the content is appropriate for the learners, the amount of content in each activity is appropriate. There is a presentation format to stimulate the learners' interest. Activities are consistent with the content and the overview of the content is complete were excellent level ($\bar{X}$=5.00, S.D. =0.00), respectively.

Compare the learning achievement of students between pre-test and post-test scores using an edutainment teaching technique by use English songs to improve the English scores of the low achievement students. The conclusion is that using an edutainment teaching technique by use English songs to improve the English scores of the low achievement students. The mean score was 71.8333, and the standard deviation (SD) score was 6.56, and the T is 80.455, and the sig.(2-tailed) is .000 and the difference was statistically significant at .05 level.

**Conclusion**

In my study use an edutainment teaching technique by use English songs to improve the English scores of the low achievement students., The research benefits are that English songs
could improve achievement scores after using the songs with statistical significance, learning motivation, and making Educational Quality in China through the 4-element goal of Sustainable Development Goal (SDGs).

**Discussion and Recommendation**

This paper first demonstrates the importance and feasibility of the application of English songs in the field of English teaching through many theoretical analyses, combined with the theoretical basis of psychology, pedagogy, music, and other fields. Finally, through the teaching case analysis, the feasibility and importance of the application of English songs to improve the performance of low scores English students are demonstrated. Through the analysis and discussion of the importance, feasibility, and application forms of English songs in the field of English teaching, combined with previous exploration and practice, as well as my own teaching cases, this paper proves that music can be highly possible to form a specialized research field in different language teaching, especially the feasibility and importance of improving English teaching.

Based on summarizing previous studies and combining with its own teaching characteristics, this paper classifies the application of English songs in the English teaching process of junior high school from the perspective of language knowledge (such as vocabulary, pronunciation, grammar, etc.) and language skills (listening, speaking, reading, writing, translating, etc.). In addition, it demonstrates the importance and feasibility of the application of English songs in the field of English teaching and learning from the perspective of case analysis.

This paper involves a wide range of knowledge and cross-combination, not only to make use of linguistics, pedagogy, music, psychology, physiology and other disciplines of theory and practice, but also need to collect and study a lot of different subjects of data. Due to the limitation of capacity, there are certain limitations in the collection and analysis of relevant data.

Based on the summary and discussion of the study, the researcher has several suggestions for further study as follows:

**Language Skills Dimension Study**: Investigate the specific impact of English songs on different language skills, such as listening, speaking, reading, and writing, to comprehensively assess their role in improving student achievement.

**Educational Technology Integration**: Explore how educational technology, such as virtual reality (VR) or augmented reality (AR), can be combined with English songs to improve student achievement in English subjects.

**Innovative Teaching Methods**: Explore innovative teaching methods, such as the use of social media or online collaboration tools, to promote student learning using English songs, and assess the impact of these methods on student achievement.

**Independent Learning Ability**: To study the effect of English songs on students’ independent learning ability, including their role in extracurricular learning and independent practice.

These recommendations are intended to promote more in-depth, comprehensive research to understand how English songs can most effectively improve students' English achievement.
Acknowledgements

I would like to express my heartfelt gratitude and appreciation to everyone who contributed to this fascinating intellectual endeavor.

First and foremost, as a recipient of the opportunity 2023 from the Rajamangala University of Technology Thanyaburi, Thailand. I would like to express my gratitude to the Thai government for providing me with this wonderful opportunity to pursue higher education in Thailand. I am also very grateful to Assistant Professor Dr. Metee Pigultong, my thesis advisor for his guidance and advice, and fatherly support throughout my Master's study. I would also like to thank the members of my thesis committee: Assistant Professor Dr. Nattaphon Rampa; Assistant Professor Dr. Naruemon Thepnuan; Assistant Professor Dr. Thidarat Kulnatarawong; Assistant Professor Arnon Niyompol. I would like to express my gratitude to all the experts who contributed to the review and validation of my research instruments. The validation of my research instruments would not have been possible without their enthusiastic participation and suggestions. I am very grateful to my family who have provided me with unwavering support and encouragement throughout my two years of study. Without them, this feat would not have been possible. Finally, I would like to express my gratitude to my friends and research participants in China and all those who contributed to making my thesis a success all processing.
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