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TECHNOLOGY-ENHANCED LANGUAGE TEACHING WITH MUSIC IN CHINESE KINDERGARTEN : INVESTIGATING IMPLEMENTATION AND EFFICACY

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Abstract

This paper provides the background to a doctoral project examining the use of enhanced technology and music in teaching English to Chinese children. It begins with a brief overview of the literature on this topic, pointing out that few of these studies have focused on nursery students in a Chinese context. Next, the first author describes her short-term preliminary experience in Glasgow as one of the teaching staff in a summer camp for ethnic Chinese students. In this course, the author tried applying the combination of enhanced technology and music in class, and after the class, the students, teachers and parents all gave positive feedback and comments on the learning results. This experience encouraged the first author and will inform the design her doctoral fieldwork on teaching English to Chinese nursery students using similar teaching methods.

Keywords: Technology-Enhanced Language Teaching with Music, Chinese Kindergarten.

1 INTRODUCTION

In the field of education, technology can play a positive role in enhancing learning. Technology Enhanced Teaching (TET) is increasingly used in the UK and internationally (Rosemary, 2018). Kirkwood & Price (2013) argue that TET changes the very medium of teaching, altering the ways in which teachers teach and learners learn. In the specific area of second language learning, the advancement of multimedia technology provides great potential (Steven, 2005), giving both technical and user support for language reinforcement in mainstream recreational systems. Various researchers have used case studies to examine how technological applications affect English language learners in the classroom. Ahmadi (2018) conducted a study looking at Iranian schoolchildren of various ages who were learning English as their second language and found teaching was approached in a uniform way across all ages. Other recent studies include Cohen (2016), who conducted a study looking at elementary school students learning English as a second language in the United States, and Cutter (2015), who conducted a study on college-aged students learning English as their second language in the USA, focusing on technology apps that can be used to teach English language.

As well as using enhanced technology in teaching English, some research has looked into the use of music to teach English. Lems (2001) argues that music can be used in adult ESL (English as a Second Language) courses to create a learning environment, develop reading, listening, writing, and oral skills, expand cultural knowledge and increase vocabulary. He enumerates the selection criteria for classroom music and classifies the application technologies that are available. Israel (2013) confirms that ESL learners are inspired by singing and music. It has been recognised that songs and music are used as classroom motivations for teaching and learning, resulting in creative and enhanced language expressions. Kuśnierek (2016) focused on Polish fifth grade primary schoolchildren aged 11-12 who are at a beginner level in their English studies. Şevik (2011) also focused on primary school students, this time in Turkey, but used teachers as the research participants to determine how young learners' English studies are impacted by the use of music.

However, to the best of our knowledge, few researchers have examined Technology-Enhanced Language Teaching with Music (TELT-M), and none have systematically investigated the specific context of English classes in Chinese nurseries. This research fills that gap by exploring how TELT-M could enhance Chinese children's engagement and performance in developing English language and communication skills.

2 PRELIMINARY EXPERIENCES

In July 2019, the first author co-taught in a Chinese summer camp in Scotland which was aimed at children aged 3-5 years old living in and around Glasgow. These 12 kids mainly came from Chinese families in Glasgow (meaning one or both of the children's parents were ethnic Chinese), while others were not ethnic Chinese but had (or had parents who had) a strong interest in Chinese culture. In the one-month class, we chose different picture books as the main teaching materials each week, specifically selecting picture books that were popular among kindergarteners in Glasgow (the first author did a survey with their parents in advance). The Chinese versions of the picture books used in class were translated by the first author and used Chinese materials openly available online. In addition, the songs used were related or similar to the contents of the picture books. For example, in the first week, the picture book we used was *The Very Hungry Caterpillar*, and the related Chinese song was called "Hungry Caterpillar" (<https://www.youtube.com/watch?v=VEDyMcwebBg>).

In class, the main technology used to deliver content was applying virtual learning environments, including PowerPoint consisting of the contents of the picture books, followed by music listening and singing with online video player. Animations to accompany the music were downloaded and played on computers (the music came from open access platforms including YouTube, QQ music and NetEase Cloud Music).

After this short-term course, the following two points were noticeable. First of all, when it came to the learning content, because the students had already understood and learned the same content in English while attending nursery in Scotland, when they approached the Chinese versions of the picture books, we found that they showed no fear and were even intrigued by the unfamiliar language. In fact, during the time when the teachers taught the picture books, the students were willing to participate in the discussions. Because of their familiarity with the stories, they were active in speculating on the development and expression of these Chinese versions. In the learning process, because the contents of the picture books were projected on the wall, students could see the contents and pictures. During the whole process, they focused on the content of the story and did not wander off to do other things.

When they studied the songs, it could be found that as long as I taught them the lyrics along with the rhythm of the music and played videos of the animations at the same time, the speed with which they memorised the song lyrics and their interest in singing were also significantly high.

Adorno and Gillespie (1993) argue that music is like language. Teaching English to nursery students with music helps because language and music processing can trigger new neural connections that support the development of both. Recent research in the neurosciences of music has uncovered how the brain has the capacity to develop new neural connections depending on experiences – also known as plasticity – and that cognitive and emotional processes are interconnected through neural networks across brain areas (e.g. Odena, 2018). Using music in teaching English in nurseries facilitates teaching, attracts students' attention and cultivates their interest (e.g. Ruan, 2014).

TELT in Chinese nurseries is still at a rudimentary stage, needing further research. Liu (2014) suggests that Chinese nurseries are adopting technology in their education but that they still face challenges and problems.

Our recent experiences in Glasgow provided an idea of how enhanced technology and music can be combined as a teaching method in the English classroom within Chinese nurseries. This led to the development of the research design for the first author's doctoral project at the University of Glasgow, supervised by the second and third co-authors. The focus in the doctoral study will be Chinese nursery students, with the aim to research TELT-M pedagogical approaches for teaching English to Chinese nursery students.

3 METHODOLOGY

The key research questions of the doctoral study are: 1. How can TELT-M enhance language nursery students' learning efficiency? Teachers using traditional teaching methods find difficulty in effectively combining form, meaning and the sound of the words (Liu 2005), but TELT-M may make it is easier to integrate these using video, audio and images, helping students to learn more efficiently; 2. What is the role of combining TELT with music in cultivating Chinese nursery students' English communication and language skills?

This research will probe the current development of TELT in Chinese nurseries, the problems and difficulties that occur, and the combination of TELT with music in teaching English. For example, Hu et al. (2016) argue that some early childhood teachers are not well qualified to conduct early childhood education, including using technology-enhanced teaching methods. In addition, it has been argued that increased emphasis on teaching technologies such as multimedia may draw children's attention away from language knowledge to entertainment, and children may become addicted to these media as entertainment (Hatch, 2011).

Working with three Beijing nurseries and randomly selecting one class from each that has adopted TELT, this study will use a quasi-experimental design to compare students taught with TELT-M and those who receive a traditional approach with flashcards and drilling methods. This is an empirical study that aims to investigate the impact, if any, on the target population through intervention. The assignment of the study population is not entirely random (the nurseries will be selected), thus the researcher will have the ability to control the intervention's length and intensity and fit sampling to the desired eligibility criteria; this design is used in social science studies, as well as in linguistics (e.g. Cohen, Manion & Morrison, 2018). The participants (3 to 6-year-old students, with 12 from each of the three classes) will be observed in their English classes every weekday and at home for one hour per week. Surveys and semi-structured interviews with three teachers and 36 parents will be used, prior to and at the end of the study, to compare perceptions and experiences of the technology-enhanced teaching and learning as well as TELT-M. An online test will provide complementary data by focusing on pronunciation, vocabulary and communication skills. In addition, the head of each nursery will be interviewed. Questions will be asked about the current situation, past experiences, and existing problems with using TELT in nursery language education. Questionnaire responses from parents will help to gather their perceptions of TELT-M teaching.

4 NEXT STEPS AND POTENTIAL CONTRIBUTION TO KNOWLEDGE

The next step for this project is for the first author to obtain Ethics approval for the fieldwork in China, develop data gathering tools and pilot them. In terms of its potential contribution to knowledge, this study aims to outline directions for future developments of TELT in nursery education in China. The research could suggest future paths for TELT teacher development, curriculum, and nursery management, specifically for integrating music into TELT.

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