

Effectiveness of Using Technology Based Songs to Enhance Vocabulary Competency among Year Two Undergraduate Students at Universiti Malaysia Sabah (UMS)

Keberkesanan Penggunaan Lagu Berasaskan Teknologi Untuk Meningkatkan Kecekapan Perbendaharaan Kata di Kalangan Pelajar Tahun Dua di Universiti Malaysia Sabah (UMS)

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Abstract: The general standard of English among Malaysian students is poor considering that they receive 11 to 13 years of formal English lessons at both primary and secondary level. As a result, they often need to re-take the Malaysian University English Test (MUET) in order to fulfill the English proficiency requirements for university entry. The unsatisfactory level of students' English has attracted the attention of educators, becoming a topic of concern for the government and local communities. Advances in technology that have signaled Industrial Revolution 4.0, prompted the researchers to explore the effectiveness of employing technology-based songs to enhance vocabulary competency among students taking English subjects. A total of 65 students took part in a seven-week research study based on a quasi – experimental design. From the sample, 35 students were placed in the experimental group and taught English vocabulary via music videos as a form of intervention. The remaining 30 students were placed in a control group and taught via traditional methods. Pre and post-tests involving vocabulary questions were distributed to all 65 students. Paired Sample T-Tests were then conducted and analyzed: the findings indicated that the mean score for the experimental group was statistically higher than that for the control group. This research may help educators to gain more ideas about employing technology to deliver teaching more effectively; and has indirectly demonstrated more effective procedures for enhancing 21st Century skills which align with the aims of Industrial Revolution 4.0.

Keywords: 21st Century Skills; English Vocabulary Competency; Industrial Revolution 4.0; Technology

Abstrak: Tahap penguasaan Bahasa Inggeris masih boleh dipertikaikan walaupun pendidikan di negara Malaysia mempunyai 11 ke 13 tahun pembelajaran bahasa Inggeris secara formal di peringkat sekolah rendah mahupun sekolah menengah. Akibatnya, mereka gagal dan perlu mengambil semula ujian Malaysian University English Test (MUET) kerana pelajar perlu memenuhi syarat tertentu bahasa Inggeris di universiti. Tahap penguasaan yang rendah dalam bahasa Inggeris di kalangan pelajar menjadi perhatian dan topik perbincangan di kalangan pendidik, kerajaan dan masyarakat. Dengan perkembangan teknologi dalam Revolusi Industri 4.0, para pengkaji ingin melihat keberkesanan penggunaan lagu berdasarkan teknologi untuk meningkatkan kecekapan perbendaharaan kata di kalangan pelajar – pelajar yang mengambil subjek Bahasa Inggeris. Seramai 65 orang pelajar telah mengambil bahagian dalam kajian menggunakan kaedah Quasi – Eksperimental yang berjalan selama tujuh minggu. 35 orang ditempatkan pada kumpulan Eksperimen dan menggunakan lagu berasaskan teknologi sebagai intervensi, manakala 30 orang dalam kumpulan kawalan dan hanya menggunakan kaedah pembelajaran tradisional. Data

diambil daripada 65 pelajar melalui ujian pra dan pasca yang menggunakan soalan perbendaharaan kata. Selepas ujian sampel berpasangan T – Test dijalankan, hasil kajian menunjukkan markah min adalah tinggi pada kumpulan eksperimental berbanding markah min pada kumpulan kawalan. Kajian ini diharap dapat membantu memberi idea kepada tenaga pengajar untuk menyampaikan pembelajaran dengan lebih efektif, di mana mereka dapat kemahiran baru dalam menggunakan teknologi di dalam pengajaran dan pembelajaran. Di samping itu, kajian ini secara tidak langsung telah memperlihatkan prosedur yang lebih efektif dalam meningkatkan Kemahiran Abad ke – 21, seiring dengan Revolusi Industri 4.0.

Kata kunci: *Kemahiran Abad ke-21; Perbendaharaan Kata Bahasa Inggeris; Revolusi Industri 4.0; Teknologi*

Introduction

Rusrenna *et. al* (2018) stated that transmitting a message or data to someone else requires a two-way communication from one person to another. The authors also contend that a classroom environment that promotes multiple types of discourse is needed so that learners or students can practice communicating using their own reasoning. Surprisingly in Malaysia, despite of all emphasis and attention given by the Ministry of Education to the development of English language competency, the proficiency level of Malaysian undergraduates with 11 to 13 years of formal English education is still a long way from satisfactory (David *et.al.*, 2015). As a result, students are failing English language courses in university and needing to re-sit the Malaysian University English Test (MUET). Band scores range from 1-5 and students need to attain upper Band 3 to be considered proficient. If they do not achieve this score, they cannot join foreign language courses and may miss out on learning Korean, Japanese and other popular languages.

As English is a global language, it is considered as a second language by many and is spoken by millions as their first language (Ibrahim, 2016). If they cannot master English language, they will face difficulty to cope up with other languages. The low level of students' English language proficiency has not only attracted the attention of educators teaching English language in schools and higher learning institutions but has also become a matter of concern for the government and local communities. One of the reasons why the standard of English is so low, may be that educators are not being creative enough in their teaching in the classroom. Simply delivering knowledge to students via 'chalk and talk' is no longer considered acceptable. According to Mahesh *et. al.* (2016), 'chalk and talk' is now considered outdated: there are many more effective and appealing teaching

methods that can be used. Wong and Nunan (2011) state that a variety of teaching strategies can be employed to assist educators to improve their learning environment and give meaningful experiences to young learners who may be receptive to different ways of learning in the classroom. Recent, significant advances in technology have led researchers to proclaim that Information, Communication and Technology (ICT) integration is one of the most effective approaches to utilise in the classroom. Furthermore, some researchers have found out that incorporating songs via technology is one of the most effective ways to enhance the standard of English. Past studies had shown that introducing language through songs backed by technology is a successful and popular strategy for improving the English competency of students. For example, Burhayani (2013) stated that incorporating songs through technology employment assist learners to make the learning process more enjoyable, memorable, indirectly improving their capability and ability in English skill elements, including vocabulary. However, limited studies have been conducted on the effects of using songs through technology to enhance English learning skills focusing on vocabulary competency among lower proficiency undergraduate students. Consequently, this research study was devised to determine the effectiveness of using technology-based songs to enhance vocabulary competency of Year Two undergraduate students at Universiti Malaysia Sabah (UMS).

Literature Review

The Effectiveness of Using Technology to Introduce New language via Songs in the Classroom

Research conducted by Hagverdi and Abdpur (2013) on the effects of songs and movies on the language

achievement of high school students showed that the audio-visual media used in the study had a significant effect on students' language achievement in terms of their listening, reading, vocabulary and grammar. It can thus be postulated that the role of songs and movies delivered through ICT is a meaningful one in terms of enhancing students' language development. This contention is supported by a study conducted by Burhayani (2013) on the effectiveness of teaching vocabulary through songs to the second years students of Ikatan Keluarga Kesejahteraan Tentera (IKKT) Elementary School in West Jakarta. This research concluded that teaching vocabulary through songs when played through technology or computers helped second graders to learn by making the process more enjoyable. This is the particular reason for the circumstance students can remember new words or lyrics easily when they sing along to the song. Performing actions while singing also aids learners to derive the meaning of words contained in the lyrics without them asking what the meaning is or having to look it up in the dictionary.

Meanwhile, research by Limbong (2012) about enriching students' vocabulary using English pop songs also reveals that incorporating such methods is an effective - and popular - way to teach students. Songs presented through ICT are also recommended to be used in the classroom to improve the development of English vocabulary. Coyle and Garcia (2014) used songs to enhance L2 vocabulary acquisition in preschool children. In their study, they provided evidence that songs are a valuable resource for teaching English to preschool learners. Moreover, Millington (2011) also studied the effect of using songs to teach English to preschoolers, proving that they can be a valuable learning tool, helping students to improve their learning skills and pronunciation, as well as being useful for teaching vocabulary and sentence structures. Zoghi (2015) studied the effect of song-based learning on young EFL learners' vocabulary performance in Iran. The results of the study indicate that the use of songs as a teaching aid in class has a significantly positive effect on vocabulary performance. Furthermore, research by Akbarpour and Roohani (2015) on the comparative impact of song and non - song - based vocabulary instruction revealed that the use of songs had a positive impact on the EFL students' vocabulary development. Hence, presenting songs with the aid of technology can be considered beneficial for Second Language vocabulary learning, while at the same time being an alternative way of presenting and teaching foreign language material; as these songs can be played repeatedly and enhanced through technological means.

Methodology

Research Objectives

To compare the effectiveness of song-based teaching (delivered through ICT) and traditional teaching (without song based) in enhancing the English vocabulary of Year Two Undergraduates.

Research Questions

Is there any statistically significant difference between song-based teaching (via technology) and traditional teaching (without song-based) on the English vocabulary development of Year Two Undergraduates?

Hypothesis

There is no significant difference between the effect of using song-based teaching (via technology) or traditional teaching (without song-based) on the English vocabulary of Year Two Undergraduates.

Research Design

This study utilized a non-equivalent quasi-experimental design, which included both a control and an experimental group (Woei, Bikar, Rathakrishnan & Rabe, 2021). The experimental group was tested twice, once before the treatment and once afterwards. Any changes in the outcome were considered to be the result of the treatment (Singh, Rathakrishnan, Talin, & Kiflee (2018). Meanwhile, the control group was also tested at two intervals; pre - test and post - test, however, they did not receive any treatment and were only taught via conventional or traditional teaching methods.

Table 1: Quasi-Experimental Research Design

Group	Pre-Test	Treatment	Post-Test
Experimental Group	0	0	0
Control Group	0	X	0

Sample

The research population for this study consisted of Year Two Undergraduate students from UMS who registered for English elective courses at The Centre for the Promotion of Knowledge and Language Learning, UMS (known as *Pusat Penataran Ilmu dan Bahasa* or PPIB). These undergraduate students were required to take English electives because they achieved lower grades in the Malaysian University English Test (MUET), namely Band 1, Band 2 or Lower Band 3. The researcher applied a purposive sampling method for the current study to determine the students for the experimental and control groups. Selection was according to the following criteria:

- The students are currently registered for an English elective course at PPIB.
- The students achieved either Band 1 or 2 in MUET.
- They are Year Two undergraduate students.

Overall, 65 participants were chosen from an approximate research population of 120 students. The sample sizes were 35 for the experimental group and 30 for the control group.

Results & Discussion

Table 2: Comparison between the post-test vocabulary scores of the Control and Experimental Groups

Items	Mean	N	Std. Deviation	Mean Difference
Post-test Vocabulary Control	26.17	30	3.38	15.06
Post-test vocabulary Experimental	41.23	35	3.21	

A paired samples T-Test was conducted to compare the effectiveness of teaching via technology- based songs and traditionally based teaching in enhancing Year Two undergraduates' vocabulary. The Table shown above compares the results of the post-test vocabulary test done by both groups. There was a statistically significant difference between the control group and experimental group in their post-test vocabulary scores. The mean difference in the groups' vocabulary scores was 15.06. Therefore, it can be concluded that teaching via technology-based songs is a more effective way of enhancing vocabulary knowledge than using traditional teaching methods in the case of Year Two undergraduate students in UMS. Hence, the hypothesis of there is no significant effect between technology - based songs and traditional based teaching in enhancing Year Two undergraduate students' vocabulary is rejected.

The results of the data analysis show that the mean score for the experimental group was statistically higher than that of the control group. This indicates that the usage of technology-based songs is more effective in enhancing the English vocabulary of Year Two undergraduate students at UMS. In addition, the null hypothesis for this research question was rejected; as there is a significant effect between technology - based songs and traditional based teaching in enhancing vocabulary among Year Two undergraduate students in UMS. The result of the study aligned with those of

previous studies, such as Burhayani (2013). This previous research concluded that teaching vocabulary through songs is effective, due to the fact that they assisting learners to have fun while learning. Not only that, students can remember new words or lyrics easily, especially when they sing along to the songs. Another study by Limbong (2012) about enriching students' vocabulary using technology-based songs also revealed that songs are effective media to teach students. In addition, the findings of Millington (2011) also align with the results of this current study, whereby the author concluded that songs can help learners improve their listening and pronunciation skills, as well as being useful for teaching vocabulary and sentence structures. Furthermore, research by Akbarpour and Roohani (2015) also concurs with the current study: songs were found to have a positive impact on the student participant's vocabulary gains, and also represented an alternative way of presenting and teaching foreign language materials. Songs have become one of the effective and alternative tools for teaching and learning in the language classroom because the vocabulary contained in the song lyrics is repeated. When the same vocabulary item is repeated several times, it enables the learners to remember and recall the words introduced in the song. Thus, the new language is acquired. In addition, with the involvement of technology, more activities can be done involving songs to enhance learning focusing on English language studies, especially vocabulary. In addition, technology need not only be utilized as gadgets, but can also be employed to assist- in the educational field in the form of audio or video song performances.

Conclusion

The purpose of this study was to compare the effectiveness of teaching via songs delivered by technology and traditional teaching in enhancing Year Two undergraduates' English vocabulary. It was also the intention to explore the relationship between these two teaching approaches. According to the literature review conducted by the researcher, the repeated presentation of songs via digital means has proven to be the most effective way to enhance learners' vocabulary, as even when songs are played multiple times, most students can still derive some enjoyment from the experience. Through the repetition of the lyrics students not only remember the words, but also come to understand the meaning and usage of the words, thereby indirectly acquiring the target language items. Furthermore, songs can be played through technology such as laptops that enable them to be

repeated or played in a loop. This research could be improved by replicating the study using a sample of higher proficiency level students with MUET Bands 4, 5 or 6. Different data collection methods could also be incorporated into the study, such as observation and interview.

On the other hand, the current research findings may help educators to develop alternative teaching tools and resources once they understand the importance of audio -visual media such as pop song videos in improving vocabulary knowledge. The findings of the study show that there was a positive relationship between the usage of digitally performed songs and enhanced English vocabulary. In conclusion, since technology is widely used nowadays, perhaps policy makers could improve the resources available for educators and school administrators by providing song-friendly textbooks or by improving lesson plans (by implementing greater use of multi-media in the classroom), to make the classroom environment lively and enjoyable. It is hoped that this paper will assist educators, especially English language teachers or lecturers who teach English language at University level to integrate technology in the form of songs more effectively, efficiently, deliberately, confidently into the teaching and learning process. Furthermore, this research could help inspire educators to employ technology more effectively and creatively in the classroom. To sum up everything that has been stated so far, this study has also indirectly demonstrated procedures for enhancing 21st Century skills aligned with the aims of Industrial Revolution 4.0.

References

- Akbarpour, S., Roohani, A. (2015). The comparative impact of song and non-song vocabulary instructions. *International Journal of Language Learning and Applied linguistics World*, 10 (2), 1 – 12.
- Burhayani. (2013). The Effectiveness of Teaching Vocabulary through songs to the second years students of Ikatan Keluarga Kesejahteraan Tentara (IKKT) Elementary School West Jakarta. *ISQAE*, 69–73.
- Coyle, Y., Gomez Gracia, R. (2014). Using songs to enhance L2 vocabulary acquisition in preschool children. *ELT Journal*, 68 (3), 276–285.
- David, A. R., Siew, M. T., Hazita, A. (2015). Accommodating low proficiency ESL students' language learning needs through an online writing support system. *Journal of Social Sciences and Humanities*, 12 (4), 118 – 271.
- Haghverdi, H. R., Abdpur, S. (2013). The effect of song and movies on high school students' language achievement in Dehdasht. *Procedia - Social and Behavioral Sciences*, 192 (1), 313–320.
- Ibrahim, A. (2016). English as a global language and the effects on culture and identity. *American Research Journal of English and Literature*, 2, 1 – 6.
- Limbong, R. (2012). Enriching students' vocabulary using English pop songs. *Journal of English Teaching*, 2 (3), 223–237.
- Mahesh, S., Sunanda, G. P. S. (2016). Teacher's dilemma on using 'Chalk and Board' or 'Projector and Screen': Which is Effective? *Language in India*, 15 (10), 138–148.
- Millington, N. T. (2011). Using songs effectively to teach English to young learners. *Language Education in Asia*, 2 (1), 134 –141.
- Rusreena, R., Melor, Md. Y., Harwati, H. (2018, April). *Low speaking proficiency among the Malaysian undergraduates: Why and How? E – Prosiding Persidangan Antarabangsa Sains Sosial dan Kemanusiaan 2018*, Kolej Universiti Islam Antarabangsa Selangor, pp. 678 – 689.
- Singh, S. S. B., Rathakrishnan, B., Talin, R., & Kiflee, D. N. A. (2018). Pengintegrasian sistem maklumat Geografi (GIS) dalam pengajaran dan pembelajaran Geografi: Kajian kes di Sekolah Bestari luar bandar di Sabah. *e-Bangi*, 14(2).
- Woei, R. L. J., Bikar, S. S., Rathakrishnan, B., & Rabe, Z. (2021). Integrasi permainan media Word Wall dalam Pendidikan Sejarah. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 6(4), 69-78.
- Wong, L. L. C. and Nunan, D. (2011). The learning styles and strategies of effective language learners. *System*, 39 (2), 144-163.
- Zoghi, M. (2015). The effect of using songs on Iranian young EFL learners' vocabulary performance. *International Journal of Language Learning and Applied linguistics World*, 9 (1), 24 – 33.