



The Effect of Using English Songs by Olivia Dean through Spotify on Students' Vocabulary Mastery at Vocation High School

Raifhannisa Adiibah Alvan¹, Ade Ismail Ramadhan Hamid², Abdul Halim³

^{1,2,3}Universitas Muhammadiyah Kalimantan Timur, Samarinda, Kalimantan Timur, Indonesia

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Corresponding Author:

Raifhannisa Adiibah Alvan
2211102421050@umkt.ac.id
Universitas Muhammadiyah
Kalimantan Timur, Samarinda,
Kalimantan Timur, Indonesia

Abstract

This study aims to investigate the effect of using English songs by Olivia Dean through Spotify on students' vocabulary mastery at SMK Negeri 1 Tenggarong. Vocabulary mastery is an essential component for supporting both academic achievement and workplace communication in vocational contexts, yet conventional instruction often lacks engagement. This study employed a quantitative one-group pre-experimental pretest-posttest design involving 34 eleventh-grade students from the Accounting and Financial Institution program selected through purposive sampling. The instrument was a fill-gap lyric vocabulary test based on the song "So Easy (To Fall In Love)." Data were collected through a pretest, four treatment sessions, and a posttest, and analyzed using descriptive statistics and the Wilcoxon Signed Rank Test. The results show a significant improvement in students' vocabulary mastery, with mean scores increasing from 57.06 in the pretest to 92.35 in the posttest ($Z = -5.125$, $p < 0.05$, $r = 0.879$). The effect size indicates a very strong impact. These findings demonstrate a significant pedagogical impact of integrating structured song-based instruction through digital platforms. In practice, vocational EFL teachers can incorporate lyric-based listening activities and repeated exposure through streaming platforms to support effective and engaging vocabulary learning.

1. Introduction

Students with limited vocabulary often experience difficulty in understanding texts and expressing ideas effectively. This issue is particularly prominent among vocational high school students, who are expected to use English in both academic and workplace contexts (Yurick, 2021). Vocabulary knowledge plays a fundamental role in language proficiency, as it supports comprehension and communication across language skills (Fadhila, 2022). However, conventional instructional approaches frequently lack engagement, which may reduce learners' motivation and limit learning outcomes.

To address this limitation, the use of English songs has been increasingly explored as an instructional approach. Songs provide authentic linguistic input and facilitate learning through repetition, rhythm, and contextualized language use, which contribute to vocabulary retention and pronunciation development (Febrianti et al., 2025). In addition, songs promote a more supportive learning environment by increasing motivation, reducing anxiety, and encouraging active participation (Phillip A., 2019). Empirical evidence also shows that learners respond positively to song-based vocabulary learning and demonstrate improved engagement and retention (Clara & Mallisa 2023). Furthermore, songs expose learners to meaningful language in context, enabling them to understand how words function in real communication (Bawawa, 2020).

The effectiveness of song-based learning has been further enhanced by digital technology, particularly through music streaming platforms such as Spotify (Rohmah & Indah, 2021). Spotify provides features such as synchronized lyrics and flexible playback, allowing learners to connect spoken and written forms of words in real time (Rizqi & Nugrahini, 2023). The features of Spotify support repeated exposure and self-paced learning, which are essential for vocabulary development (Butar Butar & Katemba, 2023). To ensure consistency in linguistic input, this study utilizes songs by Olivia Dean, whose music is characterized by clear pronunciation, moderate tempo, and accessible vocabulary, making it suitable for vocational learners. The use of a single artist also enables a more controlled instructional design by reducing variability in language exposure (Oktaviana, Hidayat, & K, 2023).

This study was conducted at SMK Negeri 1 Tenggarong, a vocational school where students are expected to develop practical English skills for professional communication. Based on preliminary observation, students still encounter difficulties in understanding vocabulary, particularly in listening activities. This condition highlights the need for instructional strategies that are both engaging and pedagogically effective.

It is shown that songs can support vocabulary learning and increase students' engagement in the classroom (Sari & Asahra, 2019). However, across contexts that simply listening to songs does not automatically lead to meaningful vocabulary gains unless it is supported by structured learning activities and clear instructional guidance (Li & Zhang, 2025). In addition, much of the existing research still treats songs as supplementary classroom media, with relatively limited attention to how digital platforms can systematically support learning through features such as lyric synchronization and repeated exposure (Maximilian, 2025).

At the same time, recent studies indicate that Spotify-based learning can improve vocabulary and participation when implemented in a structured way (Hidayah & Apoko 2025), yet these findings are mostly derived from small-scale or action research designs. This suggests that the effectiveness of integrating songs through digital platforms in a more controlled instructional setting has not been sufficiently examined. Furthermore,

the use of songs from a single artist as a way to maintain consistency in language input remains underexplored.

Given these limitations, the present study aims to examine the effect of using English songs by Olivia Dean through Spotify on students' vocabulary mastery at SMK Negeri 1 Tenggarong. Specifically, this study seeks to answer the following questions:

1. Does the use of English songs through Spotify significantly improve students' vocabulary mastery?
2. To what extent does students' vocabulary mastery improve after the implementation of this method?

2. Method

This study employed a quantitative approach using a one-group pre-experimental pretest-posttest design to examine the effectiveness of English songs through Spotify in improving students' vocabulary mastery. The design involved measuring students' vocabulary before and after the treatment within the same group. The pretest provided baseline data, while the posttest measured learning gains after the intervention. The use of this design was based on practical classroom conditions where a control group was not feasible. However, it is acknowledged that this design it allows direct observation of students' progress over time within an intact classroom, ensuring consistent instructional exposure for all participants. It is commonly applied in educational settings to evaluate instructional strategies when all students are required to receive the same learning treatment. Therefore, the results are interpreted as indicative of improvement rather than definitive causal effects.

The population consisted of students at SMK Negeri 1 Tenggarong in the 2025/2026 academic year. The sample included 34 students from one Accounting and Financial Institution class. Purposive sampling was applied used on several pedagogical and practical considerations. First, students had comparable English proficiency levels according to the previous academic records and teacher evaluation. Second, students had similar exposure to English learning. And third, the class schedule allowed consistent implementation of the treatment. These criteria ensured a relatively homogeneous group and minimized variability unrelated to the intervention. All students participated in both pretest and posttest, ensuring complete data collection.

The instrument used was a Vocabulary Test in the form of a Fill-Gap Lyric Test consisting of 10 items. Students were required to complete missing words from song lyrics to assess their ability to recognize and recall vocabulary in context. The same test was used in both the pretest and posttest to ensure comparability, with minor adjustments in item order to reduce testing effects. Each correct answer was scored as 10 points, while incorrect answers received zero, resulting in a maximum score of 100.

The data collection took place over four days, consisting of a pretest, four treatment sessions, and a posttest. Each session lasted in 45 minutes. During the first meeting, students completed the pretest. The treatment sessions involved listening activities using Spotify, including identifying unfamiliar vocabulary through synchronized lyrics, completing missing lyric tasks, and discussing word meanings, pronunciation, and usage. The final meeting involved reinforcement activities followed by the posttest. Throughout the process, the researcher acted as a facilitator to maintain consistency and encourage active participation.

Data analysis was conducted using SPSS version 22. Initially, descriptive statistics, including the mean and standard deviation, were calculated to summarize students' performance. Considering the relatively small sample size ($n < 50$), the normality of the data distribution was assessed using the Shapiro–Wilk test. The results of this test determined the selection of the appropriate statistical procedure. As the data did not meet the assumption of normality, the Wilcoxon Signed Rank Test was employed as a non-parametric alternative to examine differences between pretest and posttest scores. The level of significance was established at 0.05.

Furthermore, ethical considerations were carefully observed throughout the study. Permission was obtained from the school prior to data collection, and participation was voluntary. Informed consent was secured from all participants, and measures were taken to ensure confidentiality and anonymity.

3. Result

The results of this study indicate that the use of English songs by Olivia Dean through Spotify influences students' vocabulary mastery. The study employed a quantitative one-group pre-test and post-test pre-experimental design, with students' vocabulary performance measured through pre-test and post-test scores. The data were analyzed using the Wilcoxon Signed Rank Test to examine differences in students' vocabulary mastery before and after the instructional treatment.

The analysis shows an overall improvement in students' vocabulary mastery following the implementation of the treatment. Post-test scores are higher than pre-test scores, and the Wilcoxon Signed Rank Test demonstrates a statistically significant difference between the two sets of results. These findings provide empirical evidence that integrating English songs by Olivia Dean delivered via Spotify contributes positively to students' vocabulary mastery.

Table 1. Descriptive Statistics of Pre-test and Post-test Scores

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Std. Variance
PRETEST	34	50.00	30.00	80.00	57.0588	2.25510	13.14935
POSTTEST	34	30.00	70.00	100.00	92.3529	1.40402	8.18677
Valid N (listwise)	34						

The statistical summary indicates a notable improvement in students' vocabulary mastery following the instructional intervention. Prior to the treatment, pre-test scores were distributed between 30 and 80, with an average score of 57.0588, suggesting that students' vocabulary mastery was generally at a lower to intermediate level. The relatively large variance (172.9045) and standard deviation (13.14935) point to a considerable spread in students' initial performance levels.

Following the intervention, the post-test results demonstrate a clear upward shift in achievement. Scores ranged from 70 to 100, and the mean increased to 92.3529, reflecting a high level of vocabulary mastery. The variance (67.0233) and standard

deviation (8.18677) are substantially lower than those observed in the pre-test, indicating that students' scores became more closely clustered. This pattern suggests not only improvement in overall performance but also greater consistency among learners after the treatment.

Table 2. Wilcoxon Signed Rank Test

		N	Mean Rank	Sum of Ranks
POSTTEST - PRETEST	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	34 ^b	17.50	595.00
	Ties	0 ^c		
	Total	34		

The ranking results demonstrate that all participants (N = 34) fall into the positive rank category, indicating that each student achieved a higher score in the post-test compared to the pre-test. No instances of declining or unchanged scores were observed.

The mean rank value of 17.50 reflects the average rank assigned to the differences after ordering them based on their absolute values. Since all differences are positive, the ranking sequence spans from 1 to 34. The sum of ranks (595.00) represents the cumulative total of these assigned ranks, capturing the overall magnitude of improvement across participants.

Table 3. Result of Statistic's Test

	POSTTEST - PRETEST
Z	-5.125 ^b
Asymp. Sig. (2-tailed)	.000

This shows yields a Z value of -5.125, indicating a substantial difference between students' vocabulary performance before and after the instructional treatment. The Asymp. Sig. (2-tailed) value of .000 is lower than the significance level of 0.05, demonstrating that the difference between the pre-test and post-test scores is statistically significant.

These results indicate that students' vocabulary mastery after the treatment differs significantly from their performance prior to the treatment, confirming that the observed improvement is not due to chance.

Table 4. Effect Size Calculation

Z Value	N	\sqrt{N}	r (Effect Size)
-5.125	34	5.831	-0.879

To further interpret the magnitude of the effect, the effect size was calculated using the formula $r = Z / \sqrt{N}$. In this context, N represents the number of observations (34 students), while \sqrt{N} corresponds to the square root of the sample size, which is 5.831. The resulting effect size is $r = -0.879$ (absolute value = 0.879), which is interpreted as a very large effect.

4. Discussion

The findings demonstrate a substantial improvement in students' vocabulary mastery, as reflected in the increase in mean scores from pretest to posttest ($\Delta = 35$). While this outcome is consistent with prior research showing that English songs facilitate vocabulary acquisition through repetition and contextualized input (Ramadhanti & Farida, 2025), the present study places greater emphasis on its specific instructional configuration, namely the structured use of Olivia Dean's songs through the Spotify platform. Previous studies often highlight general benefits or learner perceptions (Hidayah & Apoko, 2025), whereas this study demonstrates a quantifiable and comparatively stronger gain within a guided classroom framework, supported by the affordances of digital music platforms.

Prior research has documented moderate gains or improvements of approximately 27 points in song-based learning contexts (Zaharani, 2023). This comparatively stronger outcome may be associated with the intensity of exposure, repeated interaction with a consistent linguistic style, and the use of structured lyric-based activities, which reinforce lexical retention. Nevertheless, the observed gains should be interpreted as the result of multiple interacting factors, including familiarity with the material and increased learner engagement (Sukha, Yulia & Rahayu 2025).

The findings further indicate that improvement was more evident in receptive vocabulary knowledge, recognition and recall which in turn influence productive use. This is consistent with studies showing that song-based learning primarily strengthens vocabulary recognition through contextual and repeated input (Tilwani et al., 2022). In addition, Spotify-based learning emphasizes listening and lyric comprehension, which naturally supports receptive skills more than active production. Since the instrument used was a fill-gap lyric test, the results mainly reflect students' ability to retrieve vocabulary within familiar contexts.

Despite its contributions, this study has several limitations. The use of a one-group pre-experimental design limits the ability to establish causal relationships due to the absence of a control group. The small sample size and reliance on a single song by Olivia Dean also restrict the generalizability of the findings. Future studies should incorporate control groups, larger samples, and a wider variety of songs to strengthen validity.

From a pedagogical perspective, this study suggests that teachers can effectively integrate English songs into vocabulary instruction by designing structured activities such as lyric gap-fill exercises, repeated listening, and vocabulary focus tasks (Fadli et al., 2023). However, implementation may face challenges, including limited internet access, variation in student preferences, and the presence of slang or non-standard language in song lyrics (Rahman, Syarif, & Tohamba 2024). Additionally, sustaining this approach requires careful planning to ensure that songs function as a core instructional tool rather than supplementary entertainment.

The effectiveness of Spotify-based learning depends on consistent pedagogical integration and contextual relevance (Lestari & Hardiyanti 2020). Although digital platforms offer flexibility and accessibility, their long-term implementation requires careful consideration of technology access, instructional planning, and sustained student engagement. Sustained exposure and variation in learning tasks are necessary to maintain effectiveness over time. Overall, these findings suggest that the structured use of Olivia Dean's songs via Spotify is a viable and scalable approach to vocabulary instruction, provided it is implemented systematically and supported by appropriate pedagogical strategies.

5. Conclusion

This study affirms that the use of English songs by Olivia Dean through Spotify affects vocabulary learning among eleventh-grade students at SMK Negeri 1 Tenggarong. The learning activities that combine authentic lyrics with structured listening and guided practice create conditions that promote sustained engagement with target vocabulary and encourage deeper lexical awareness.

The improvement observed in students' vocabulary mastery reflects the value of repeated exposure to meaningful language input in both spoken and written forms. Interacting with song lyrics through a digital platform allows learners to develop stronger connections among pronunciation, form, and meaning, supporting more stable vocabulary retention and application in context.

Beyond measurable learning outcomes, the instructional approach fosters a more constructive learning atmosphere in which students demonstrate greater participation and responsiveness during vocabulary-focused tasks. These findings suggest that integrating digital music platforms into formal instruction offers a practical, pedagogically relevant option for vocabulary development in vocational EFL settings. Future studies may extend this approach to other language components or explore its implementation across educational environments.

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