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The Effect of the Cake Application on Seventh-Grade Students' English Expressions Ability: A Pre-Experimental Study at MTsN Gowa

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ABSTRACT

Students often experienced difficulties in understanding and using appropriate English expressions in daily communication. This study aimed to investigate the effect of the Cake application on seventh-grade students' English expressions ability at MTsN Gowa. A quantitative approach with a pre-experimental one-group pre-test and post-test design was employed. The participants consisted of 20 students from Class VII.3, selected through purposive sampling during the 2025/2026 academic year. Data were collected using a 30-item multiple-choice test administered before and after the treatment. The treatment was conducted over six meetings using video-based materials, subtitles, pronunciation practice, and interactive exercises provided by the Cake application. The findings showed that the students' mean score increased from 69.5 in the pre-test to 84.3 in the post-test, representing an improvement of 14.8 points. The paired-samples *t*-test also revealed a statistically significant difference ($t = -35.73$, $df = 19$, $p < 0.001$). These findings indicated that the Cake application supported improved student performance and provided an alternative medium for contextual English language learning.

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INTRODUCTION

English plays an important role in international communication, allowing people to exchange information, express ideas, and interact across linguistic and cultural backgrounds. In English as a Foreign Language (EFL) learning, students are expected not only to understand grammar and vocabulary but also to use language appropriately in different communication situations. One important aspect of communicative competence is the ability to understand and use English expressions, such as greetings, thanking, apologizing, asking for help, expressing feelings, and giving compliments. Understanding these expressions requires students to recognize their meanings, communicative functions, and appropriate use in particular situations.

However, students may experience difficulties in understanding and using English expressions when classroom activities provide limited opportunities to encounter language in meaningful contexts. Recognizing individual words or phrases does not necessarily mean that students can interpret or select appropriate expressions in specific situations. Therefore, English instruction needs to provide comprehensible language input and contextualized learning activities that help students connect expressions with their meanings and communicative functions.

The development of digital technology has provided opportunities to support language learning through mobile devices. Mobile-Assisted Language Learning (MALL) allows learners to access learning materials and practice language skills in flexible learning environments. Previous reviews have discussed the potential of mobile-assisted learning to support English language development, including oral communication and vocabulary learning (Zhao et al., 2025; Nawaz et al., 2025). These findings

indicate that mobile applications can serve as supplementary learning resources when their features are aligned with instructional objectives.

One application that can be used to support English learning is Cake. It provides short English-language videos, subtitles, pronunciation practice, and interactive exercises. These features allow students to observe expressions in different communication situations, connect spoken language with written forms, and practice recognizing their meanings. The use of videos and subtitles is also relevant to the Cognitive Theory of Multimedia Learning, which explains how learners process verbal and visual information during learning (Mayer, 2009). Thus, Cake offers features that may support students in understanding English expressions through contextualized audiovisual materials.

At MTsN Gowa, preliminary observations indicated that seventh-grade students experienced difficulties in understanding and using English expressions appropriately. They needed more opportunities to encounter expressions in various communication contexts and practice identifying their meanings. In response to this learning need, the Cake application was selected as an alternative instructional medium. Its audiovisual materials and interactive features were expected to provide additional exposure to English expressions and support students' learning.

Previous studies have investigated the use of Cake in English language learning, particularly in speaking development. Bariza (2021) examined the use of Cake to support EFL learners' speaking skills, while Xiaoyu (2018) explored its use in developing primary school students' speaking abilities. Meanwhile, studies on mobile-assisted language learning have discussed its potential to support broader language-learning outcomes (Zhao et al., 2025; Nawaz et al., 2025). Although these studies provide insights into the use of mobile applications for English learning, the present study addressed a different focus: students' ability to understand English expressions in a seventh-grade *Madrasah Tsanawiyah* context. This focus distinguishes the study from previous research that primarily examined speaking skills or general language development.

Based on this research gap, this study aimed to investigate seventh-grade students' English expressions ability at MTsN Gowa before and after using the Cake application and to determine whether there was a statistically significant difference between their pre-test and post-test scores. Employing a quantitative pre-experimental one-group pre-test and post-test design, the study examined changes in students' performance following the implementation of Cake. The findings were expected to provide empirical information about the use of Cake as a supplementary medium for teaching English expressions, offer teachers an alternative technology-supported learning resource, and serve as a reference for further research on mobile-assisted English learning.

METHOD

This study employed a quantitative approach with a pre-experimental design, specifically a one-group pre-test and post-test design. This design was used to examine changes in students' English expressions ability before and after receiving instruction through the Cake application. According to Ary et al. (2010), a pre-experimental design can be used to investigate changes in a group following an instructional intervention. The research design is presented as follows:

$$O_1 \rightarrow X \rightarrow O_2$$

Where O_1 represents the pre-test, X represents the treatment using the Cake application, and O_2 represents the post-test.

The research was conducted at MTsN Gowa, South Sulawesi, Indonesia, during the 2025/2026 academic year. The population consisted of 120 seventh-grade students distributed across six classes. A total of 20 students from Class VII.3 were selected as research participants through purposive sampling. The selection of this class was based on its suitability for the implementation of the instructional activities using the Cake application.

The research instrument was a 30-item multiple-choice test designed to measure students' understanding of English expressions in communication contexts. Each item consisted of four answer options, with one correct answer. Each correct response was awarded one point, while an incorrect response received zero points. The test covered three assessment aspects: recognizing expressions, understanding expressions, and selecting appropriate expressions based on communication contexts. The materials included greetings, leave-taking, thanking, apologizing, asking for help, expressing feelings, and giving compliments. Content validation was conducted through consultation with the

research supervisors and English teachers. In addition, empirical item validity was examined using the Pearson Product-Moment Correlation with SPSS version 25.

The data collection procedure consisted of four stages: observation, pre-test, treatment, and post-test. First, classroom observation was conducted to identify students' learning conditions and difficulties in understanding English expressions. Second, a pre-test was administered to the 20 participants to measure their initial understanding before the treatment. Third, the treatment was implemented over six meetings, with approximately 90 minutes allocated to each meeting. During these sessions, the Cake application was integrated into classroom activities through English-language videos, subtitles, pronunciation practice, and interactive exercises. The learning materials covered three topics: *My Class Schedule*, *My Online Class*, and *My Study Habits*. Throughout the six meetings, students were introduced to 77 English expressions and participated in contextual learning activities. Finally, a post-test was administered to measure students' understanding after completing the treatment.

The collected data were analyzed using descriptive and inferential statistics. Descriptive statistics were used to calculate the students' mean scores and determine their performance classifications in the pre-test and post-test. Before conducting the hypothesis test, the normality of the data was examined using the Shapiro–Wilk test. A paired-samples *t*-test was then performed to determine whether there was a statistically significant difference between the students' pre-test and post-test scores. All statistical analyses were conducted using SPSS version 25, with a significance level of .05.

RESULT AND DISCUSSION

Result

The data in this study were obtained from the English Expressions Test administered before and after the implementation of the Cake application. The test was given to 20 seventh-grade students of MTsN Gowa. It was designed to measure students' ability to recognize English expressions, understand their meanings, and select appropriate expressions in different communication contexts.

The pre-test was administered to identify students' initial performance before the treatment. The results showed that most students had not achieved satisfactory scores. As presented in Table 1, seven students (35%) were classified as poor and another seven students (35%) were classified as very poor. The remaining six students (30%) were in the fair category. No students reached the good or very good categories. These results indicate that students' initial performance in the English Expressions Test was relatively limited.

Table 1 Students' Pre-Test Score Classification

Classification	Frequency	Percentage
Very Good	0	0%
Good	0	0%
Fair	6	30%
Poor	7	35%
Very Poor	7	35%
Total	**20**	**100%**

Source: Researcher's data analysis (2026).

After the pre-test, students participated in six instructional meetings using the Cake application. The learning activities included English-language videos, subtitles, pronunciation practice, and interactive exercises. The materials covered several topics, including *My Class Schedule*, *My Online Class*, and *My Study Habits*. Following the treatment, the students completed the post-test to measure their performance after the instructional activities.

The post-test results showed a more favorable distribution of scores, as presented in Table 2. Ten students (50%) achieved the fair category, nine students (45%) reached the good category, and one student (5%) achieved the very good category. Notably, no students were classified as poor or very poor.

Table 2 Students' Post-Test Score Classification

Classification	Frequency	Percentage
Very Good	1	5%
Good	9	45%
Fair	10	50%
Poor	0	0%
Very Poor	0	0%
Total	**20**	**100%**

Source: Researcher's data analysis (2026).

The comparison between the pre-test and post-test classifications indicates a positive change in students' test performance following the treatment. Before the treatment, 70% of the students were classified as poor or very poor. After the treatment, all students were classified within the fair, good, or very good categories. This change shows that students obtained better results on the English Expressions Test after participating in the learning activities using the Cake application.

The improvement was also reflected in the descriptive statistical results. As shown in Table 3, the students' mean score increased from 69.5 in the pre-test to 84.3 in the post-test, representing an increase of 14.8 points. The minimum score also increased from 61 to 78, while the maximum score increased from 79 to 93.

Table 3 Descriptive Statistics of Students' Pre-Test and Post-Test Scores

Statistical Description	Pre-Test	Post-Test
Number of students	20	20
Minimum score	61	78
Maximum score	79	93
Mean score	69.5	84.3
Standard deviation	5.907	4.911

Source: Researcher's data analysis (2026).

The descriptive results indicate that students obtained higher scores after the treatment. The decrease in the standard deviation, from 5.907 to 4.911, also indicates that the post-test scores were less dispersed than the pre-test scores. In other words, students' results became somewhat more consistent after the instructional activities. However, these descriptive changes alone do not establish that the Cake application was the sole cause of the improvement.

Before conducting the hypothesis test, the normality of the data was examined using the Shapiro–Wilk test. The results for the pre-test and post-test scores are presented in Table 4.

Table 4 Shapiro–Wilk Normality Test for Pre-Test and Post-Test Scores

Test	Statistic	*df*	Sig.
Pre-test	0.921	20	0.103
Post-test	0.914	20	0.076

Source: Researcher's SPSS analysis (2026).

The Shapiro–Wilk test produced significance values of 0.103 for the pre-test and 0.076 for the post-test. Both values were greater than 0.05, indicating that neither set of scores showed a statistically significant departure from normality based on these tests. Nevertheless, because the hypothesis analysis used a paired-samples *t*-test, the normality assumption should be assessed using the difference scores between the post-test and pre-test, rather than the two score distributions separately. Therefore, the results in Table 4 provide preliminary information, and the normality of the difference scores needs to be verified before the paired-samples *t*-test assumption can be considered satisfied.

A paired-samples *t*-test was used to examine whether the difference between students' pre-test and post-test scores was statistically significant. The results are presented in Table 5.

Table 5 Paired-Samples t-Test Results

Statistical Component	Result
Mean difference (Pre−test − Post−test)	-14.800
Standard deviation	1.852
Standard error mean	0.414
95% confidence interval	[-15.667, -13.933]
t-value	-35.73
Degrees of freedom	19
Two-sided significance	< 0.001

Source: Researcher's SPSS analysis (2026).

The paired-samples *t*-test showed a statistically significant difference between students' pre-test and post-test scores, $t(19) = -35.73$, $p < .001$. The mean difference was -14.800 because the pre-test score was subtracted from the post-test score in the order reported by the statistical output (Pre-test − Post-test). The negative value indicates that the post-test mean was higher than the pre-test mean. Since the significance value was below the 0.05 level, the null hypothesis was rejected. Thus, the results provide statistical evidence of a difference in students' test performance before and after the instructional treatment.

Discussion

The findings indicate that students' performance on the English Expressions Test improved after they participated in instructional activities using the Cake application. This improvement was reflected in the increase in the mean score from 69.5 to 84.3, as well as in the change in score classifications. Before the treatment, 70% of the students were in the poor and very poor categories. After the treatment, no students remained in these categories, while 50% achieved the fair category, 45% the good category, and 5% the very good category. These results suggest that students demonstrated better understanding of the English expressions assessed in this study after the instructional activities.

The pre-test results indicate that students initially experienced difficulties with the English expressions included in the assessment. These expressions involved common communication functions, such as greeting, leave-taking, thanking, apologizing, asking for help, expressing feelings, and giving compliments. Learning these expressions requires students to understand not only their meanings but also their communicative purposes and appropriate contexts. This is related to Hymes' (1972) concept of communicative competence, which emphasizes the importance of using language appropriately in particular social situations. From this perspective, students need opportunities to recognize expressions and understand when and how they are used in communication.

The improvement observed in the post-test may be associated with the learning opportunities provided through the Cake application. During the six treatment meetings, students were exposed to English-language videos, subtitles, pronunciation practice, and interactive exercises. These features allowed students to encounter expressions in spoken and written forms. Videos provided examples of language use, while subtitles helped students connect spoken expressions with their written forms and meanings. Pronunciation activities and interactive exercises also provided opportunities for students to engage with the expressions introduced during the lessons.

This learning process can be discussed in relation to Mayer's (2009) Cognitive Theory of Multimedia Learning. The theory explains how learners process information through verbal and visual channels. In the context of this study, the combination of video and subtitles may have helped students connect language forms with visual and contextual information. Such exposure may have supported their understanding of the expressions presented in the learning materials. However, the present study did not separately measure the contribution of each Cake feature. Therefore, the improvement cannot be attributed to a particular feature of the application.

The findings can also be viewed within the framework of Mobile-Assisted Language Learning (MALL). Kukulska-Hulme and Shield (2008) discussed the use of mobile technologies to support

language learning in different contexts, while Burston (2015) reviewed the development and implementation of mobile-assisted language learning. In this study, the Cake application served as a mobile-based learning medium that provided audiovisual materials and interactive activities for learning English expressions. The results add classroom-based evidence that the use of a mobile application, when integrated into teacher-guided instruction, can accompany improvements in students' performance on an English expressions assessment.

The findings are also relevant to previous studies concerning the use of the Cake application in English learning. Bariza (2021) examined the use of Cake to support EFL learners' speaking skills, while Xiaoyu (2018) investigated Cake English in relation to primary school students' English-speaking development. These studies focused mainly on speaking-related outcomes, whereas the present study examined students' performance in recognizing, understanding, and selecting appropriate English expressions through a multiple-choice test. Accordingly, the present study provides additional information about the use of Cake in a different learning context and with a different assessment focus, namely English expressions learning among seventh-grade students at MTsN Gowa. The findings should not, however, be interpreted as a direct comparison of effectiveness because the studies involved different participants, research contexts, and outcome measures.

Despite the improvement in students' scores, the findings need to be interpreted in light of the research design. This study employed a one-group pre-test and post-test design without a control group. Consequently, the increase in scores demonstrates a difference in students' performance after the treatment, but it does not establish that the Cake application alone caused the improvement. Other factors, such as teacher guidance, classroom activities, repeated exposure to the learning materials, and students' familiarity with the test format, may also have contributed to the observed changes.

Another consideration concerns the measurement of students' English expressions ability. The instrument used in this study consisted of 30 multiple-choice items. Therefore, the findings primarily reflect students' ability to recognize, understand, and select appropriate expressions in written test situations. They do not directly demonstrate students' speaking proficiency or their ability to produce expressions spontaneously in oral communication. Further research could combine written tests with oral performance assessments to obtain a broader understanding of students' ability to use English expressions.

Overall, the findings suggest that the Cake application can be used as a supplementary digital medium in teaching English expressions. Its videos, subtitles, pronunciation activities, and interactive exercises provide opportunities for students to engage with expressions in different forms and contexts. The increase in students' test scores after the treatment indicates that the instructional activities using Cake were associated with improved performance in this particular classroom setting. Further studies involving a control group, a larger sample, and additional assessment methods are needed to examine the contribution of the application to students' English expressions ability more comprehensively.

CONCLUSION

This study examined the use of the Cake application in teaching English expressions to seventh-grade students at MTsN Gowa. The findings showed an increase in students' mean scores from 69.5 in the pre-test to 84.3 in the post-test, indicating an improvement of 14.8 points. The paired-samples *t*-test also revealed a statistically significant difference between the pre-test and post-test scores, $t(19) = -35.73$, $p < .001$. These results indicate that students' performance in recognizing, understanding, and selecting appropriate English expressions improved after participating in the instructional activities using the Cake application. The application's videos, subtitles, pronunciation activities, and interactive exercises provided learning opportunities that supported students' engagement with English expressions. However, because this study involved only one group without a control group, the findings should be interpreted cautiously and do not establish that the application alone caused the improvement. Further research involving larger samples and control groups is needed to provide stronger evidence regarding the effectiveness of the Cake application in English language learning.

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