# Measuring The Effectiveness of U-Dictionary in Increasing The Interest in Learning English Language Student At Madrasah Ibtidaiyah

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**Abstract:** In the current era of disruption, the need to learn English is very important, therefore several digital applications have been created to make learning English easier, especially for students. U-Dictionary is a popular English learning application that can be used as an option, therefore this research aims to analyze the effectiveness of using the U-Dictionary application in increasing students' interest in learning at Madrasah Ibtidaiyah and what students' perceptions are regarding the use of U-Dictionary in increasing interest in learning languages. English at Madrasah Ibtidaiyah. This research uses mixed methods. The data collection technique used in this research is a questionnaire. Data analysis used the paired t-test data analysis technique with the Shapiro-Wilk normality test. Meanwhile, the qualitative analysis uses content analysis. Based on the results of data analysis, it can be seen that the U-Dictionary application is effective in increasing students' interest in learning at Madrasah Ibtidaiyah with a significance value (<0.001). The results of the questionnaire regarding students' perceptions of using U-Dictionary, the majority of respondents had a fairly high level of use, a fairly high level of self-confidence, the ability to understand good English vocabulary, a fairly high level of interest in learning English, and felt that learning English is quite effective or very effective.

**Keywords:** English Learning; Interest in Learning; U-Dictionary Application; Drill and Practice Method

## Mengukur Efektivitas U-Dictionary dalam Meningkatkan Minat dalam Pembelajaran Bahasa Inggris Siswa Di Madrasah Ibtidaiyah

*Abstrak: Di era disrupsi saat ini, kebutuhan belajar bahasa Inggris sangatlah penting, oleh karena itu diciptakanlah beberapa aplikasi digital untuk memudahkan pembelajaran bahasa Inggris khususnya bagi pelajar. U-Dictionary merupakan salah satu aplikasi pembelajaran bahasa Inggris populer yang dapat dijadikan pilihan, oleh karena itu penelitian ini bertujuan untuk menganalisis efektivitas penggunaan aplikasi U-Dictionary dalam meningkatkan minat belajar siswa di Madrasah Ibtidaiyah dan bagaimana persepsi siswa mengenai penggunaan aplikasi tersebut. U-Dictionary dalam meningkatkan minat belajar bahasa Inggris di Madrasah Ibtidaiyah. Penelitian ini menggunakan metode campuran. Teknik pengumpulan data yang digunakan dalam penelitian ini adalah angket/angket. Analisis data menggunakan teknik analisis data uji t berpasangan dengan uji normalitas prasyarat Shapiro-Wilk. Sedangkan analisis kualitatif menggunakan analisis isi. Berdasarkan hasil analisis data terlihat bahwa aplikasi U-Dictionary efektif meningkatkan minat belajar siswa Madrasah Ibtidaiyah dengan nilai signifikansi (<0,001). hasil angket mengenai persepsi siswa terhadap penggunaan U-Dictionary mayoritas responden mempunyai tingkat penggunaan yang cukup tinggi, tingkat kepercayaan diri yang cukup tinggi, kemampuan pemahaman kosa kata bahasa Inggris yang baik, tingkat pemahaman yang cukup tinggi. berminat belajar bahasa Inggris, dan merasa bahwa belajar bahasa Inggris cukup efektif atau sangat efektif.*

*Kata kunci: Belajar Bahasa Inggris; Minat Belajar; Aplikasi U-Dictionary; Metode Drill dan Praktek.*

## 1. Introduction

English, as a universal language, is an important skill that must be mastered in this era of globalization. The importance of this cannot be overstated as it serves as a means of international communication that transcends borders. This language plays an important role in various sectors including business, education, technology, and many more. It is stated that proficiency in English has become an indispensable requirement in this era of globalization (Blinkoff et al., 2023). However, the journey to mastering English does not always go smoothly, especially for elementary level

students or those attending Madrasah Ibtidaiyah (Hasan & Maemonah, 2024). These young learners often face great challenges in their English learning journey. They may struggle with the complexity of grammar, the nuances of pronunciation, or the breadth of vocabulary. Their ignorance of language structures and lack of exposure to English in everyday life can also add to the difficulties they face (Nja et al., 2023).

Apart from this, it is important to remember the various benefits that come from a good command of the English language. The ability to communicate effectively in English can open up many opportunities (Yuliyanti & Siahaan, 2022). It expands one's knowledge by providing access to a wealth of information mostly available in English. This improves career prospects as proficiency in English is often a prerequisite in many professions, especially in multinational companies. Additionally, it expands one's social network by enabling interactions with people from different cultures and backgrounds (Ruf et al., 2022).

Therefore, mastery of English becomes an important skill for students, the future leaders of our society. They are the ones who will lead the world towards a brighter future, and proficiency in English will be one of their most powerful tools. However, it is important to note that while the journey to English proficiency may be challenging, it is not insurmountable. With the right learning strategies, resources, and persistence, students can overcome these challenges and become proficient English speakers. Factors that can influence students' interest in learning English include limited access to learning resources, lack of motivation, and lack of support from the surrounding environment. environment. (Koskinen et al., 2023). Limited access to learning resources such as English books and dictionaries can be an obstacle for students to learn English independently. Lack of or low motivation can also make students feel uninterested or have difficulty learning English (Li et al., 2024). Apart from that, support from the surrounding environment such as family and teachers is also very influential in increasing students' interest in learning English. (Nasution et al., 2021) It is hoped that the use of technology such as English dictionary applications can help increase students' interest in learning, because these applications provide convenience and comfort in learning English without having to carry lots of books and dictionaries. In addition, by using an English dictionary application, students can expand their vocabulary and better understand the meaning of each word in English

(Ningsih et al., 2022). In the current digital era, technology can be an effective solution in overcoming barriers to access and motivation to learn English for students. In this case, an English dictionary application such as U-Dictionary can be a solution to overcome limited access to learning resources and help increase students' interest in learning English.

U-Dictionary is an English dictionary application that is very popular among pupils and students because of its ease of use and complete features (Nami, 2022). This application not only provides word definitions, but also translations from English to other languages such as Indonesian, Japanese, Korean, and many more. The word pronunciation feature is also one of the advantages of U-Dictionary because it can help students improve their pronunciation skills. Although the U-Dictionary application offers many benefits in learning English, there has been no research that specifically evaluates the effectiveness of using this application in increasing students' interest in learning English at madrasah ibtidaiyah. Therefore, this research aims to measure the effectiveness of using the U-Dictionary application in increasing students' interest in learning English at madrasah ibtidaiyah, which is divided into two problem formulations, namely (1) Is the use of U-Dictionary effective in improving students' learning abilities? ' Interested in learning English at Madrasah Ibtidaiyah? (2) What are students' perceptions of the use of U-Dictionary in increasing interest in learning English at Madrasah Ibtidaiyah?

## 2. Method

The research method used in this research is a mixed method. Mixed methods is a research approach that combines elements of quantitative and qualitative research methods (Creswell, 2014). In this method, researchers use quantitative and qualitative approaches simultaneously to produce more complete and accurate data. A quantitative approach is used to measure the effectiveness of the U-Dictionary application based on the results of questionnaires before and after use. The quantitative hypothesis that can be proposed for the formulation of this problem is as follows:

H0 (Null Hypothesis): There is no significant difference between the level of interest in learning English before and after using U-Dictionary for students at Madrasah Ibtidaiyah. Ha (Alternative Hypothesis): There is a significant difference between the level of interest in learning English before and after the use of U-Dictionary by students at Madrasah Ibtidaiyah.

In the null hypothesis, it is assumed that there is no significant influence from the use of U-Dictionary on the level of interest in learning English among students at Madrasah Ibtidaiyah. Meanwhile, in the alternative hypothesis, it is assumed that there is a significant influence from the use of U-Dictionary on the level of interest in learning English among students at Madrasah Ibtidaiyah.

A qualitative approach was used to obtain students' perceptions regarding the use of U-Dictionary through descriptive analysis of the post-test questionnaire data that was obtained. This research uses a sequential explanatory mixed design, namely a mixed research design that combines quantitative and qualitative research methods in one study (Creswell & Poth, 2017). In this research, a quantitative approach was carried out first, then continued with a qualitative approach. Quantitative data was obtained through a pre-U-Dictionary use questionnaire and a post-U-Dictionary use questionnaire conducted on Islamic elementary school students. Meanwhile, qualitative data was obtained through descriptions of the post test questionnaire data that had been obtained.

The subjects of this research were 25 grade VI students at one of the Madrasah Ibtidaiyah in Jember district. The sampling technique uses census sampling, namely a sampling technique by selecting the entire population or elements in the population to be part of the sample taken (Sugiyono, 2017). Data collection in this study used a pretest - post test questionnaire with a total of 10 questions in each test, which used a Likert scale of one to five for each question (Bryman, 2016). Research subjects will be asked questions regarding the use of the U-Dictionary application on their interest in learning English. The preparation of this questionnaire instrument uses the theories of Self-Determination, Constructivism, Cognitive Learning, Goal Orientation, and Achievement Motivation.

This research uses Paired T-Test analysis for quantitative methods. Paired T test analysis is a statistical method used to compare the averages of two variables measured at different times in the same group. This method is called "paired" or "matched" because the two variables are measured on the same subject or in similar pairs (Saunders et al., 2016). Meanwhile, the qualitative analysis method uses content analysis, namely a qualitative analysis technique used to identify and categorize information contained in texts, such as interview transcripts, questionnaires, articles or documents. This approach is used to look for patterns, themes, or concepts in text, so that it can provide a deeper understanding of the topic or phenomenon being studied (Xiang, 2014).

This research was carried out in three stages, namely the pre-field stage, field work stage, and data analysis stage. In the pre-research stage, researchers prepare a research plan in the form of field observations and questionnaires. At the fieldwork stage, the researcher gave a pre-test, then provided a stimulus and carried out a post-test. At the quantitative analysis stage, researchers analyzed the data using the JASP 0.17.1.0 application.

## 3. Results and Discussion

Survey data was obtained using a questionnaire instrument *pretest* and *posttest* use of the U-Dictionary application. This instrument was completed by 25 class VI students of MI Bustanul Ulum 05 Jember for the 2022/2023 academic year. This data is intended to find out how students' interest in learning English has increased by using the U-Dictionary application at Madrasah Ibtidaiyah. The questionnaire given consists of 10 questions for each test with a rating scale of 1 to 5, and the questionnaire is designed not to explicitly mention the particular theory that is the basis of the research. However, several questions related to interest, effectiveness, and learning motivation reflect concepts in educational psychology and learning psychology, such as Self-Determination theory, Constructivism theory, Cognitive Learning theory, Goal Orientation theory, and Achievement Motivation theory. With this, the researcher presents the questionnaire data as intended above.

Table 1. Questionnaire Results

| No | Questionnaire Results | |
|---|---|---|
| | **For** | **Pos** |
| Rate-rate | 27,24 | 35,24 |
| Total | 681 | 881 |
| Maximum | 40 | 48 |
| Minimum | 17 | 28 |

In the table above, there are 10 topics asked about in the survey related to English. The data collected are respondents' responses which are divided into several answer categories, namely Score 1 to Score 5. In qualitative content analysis, this data can be broken down into themes that emerge based on patterns and variations in respondents' responses.

Based on the results of the questionnaire that was conducted, this questionnaire consisted of 25 respondents who answered ten

questionnaires*pretestt* and ten questionnaires*posttest* with a score scale of one to five, it is obtained that, score*pretest* the average is 27.24, 681 as the total score, 40 as the maximum score obtained by students, and 17 as the minimum score obtained by students. As for value *posttest* the average is 35.24, with the total score obtained by students being 881, the maximum score obtained is 48, and the minimum score obtained by students is 28.

Before carrying out the analysis test, the researcher carried out a normality prerequisite test. The normality prerequisite test is a statistical test used to check whether data comes from a normally distributed population or not. The importance of the normality prerequisite test is: to guarantee the reliability of statistical results, determine appropriate statistical techniques, and prevent interpretation errors. In this study, the Shapiro-Wilk normality test was carried out using the JASP 0.17.1.0 application, the analysis results were as follows:

Figure 1. Normality (Shapiro-Wilk)

**Assumption Checks**

Test of Normality (Shapiro-Wilk)

|  |  |  | W | p |
|---|---|---|---|---|
| Pra | - | Post | 0.932 | 0.096 |

*Note.* Significant results suggest a deviation from normality.

In the data checking process, the normality test plays a very important role. This helps determine whether the data follows a certain distribution, in this case the standard normal distribution. One technique commonly used to test normality is the Shapiro-Wilk test. The results of this test provide the W value and p value, which provide a clear picture of whether the data is normally distributed or not.

In this study, the Shapiro-Wilk testapplied to Pre-Post data. The resulting W value was calculated as 0.932. This value, which ranges from 0 to 1, is a measure of the correlation between the data and the normally distributed values. A W value close to 1, as in this case, indicates that the data is closely related to a normal distribution.

The p value, another important component of this test, is 0.096. In statistics, the p value is used to decide whether the null hypothesis will be rejected or not. The null hypothesis in this context states that the data follows a normal distribution. Here, the p value is compared with a predetermined significance level, namely alpha

($\alpha$), which is set at 0.05. If the p-value is smaller than $\alpha$ then the null hypothesis is rejected, this indicates that the data is not normally distributed. However, in this case, the p value is greater than $\alpha$, meaning we fail to reject the null hypothesis. This shows that the Pre-Post data is indeed normally distributed.

Therefore, based on the Shapiro-Wilk test, it can be concluded that the Pre-Post data is normally distributed. This confirmation of normality is important because it validates the use of parametric statistical methods for further analysis. In this study, the application of the t-test, a parametric statistical method used to determine whether there is a significant difference between the means of two groups, is justified. The assurance of normality allows us to rely on the t-test results and strengthens confidence in our findings.

Based on the questionnaire data and prerequisite tests that the researcher wrote above, the researcher tested the data using paired T test analysis. In this research, a Paired T-Test analysis test was carried out using the JASP 0.17.1.0 application, the results of the analysis are as follows:

Figure 2. Data Analysis (Paired T Test)

Paired Samples T-Test

| Measure 1 |  | Measure 2 | t | df | p |
|---|---|---|---|---|---|
| Pra | - | Post | −8.781 | 24 | < .001 |

*Note.* Student's t-test.

In the t-test analysis carried out, important information was obtained: the t value, which turned out to be -8.781. This t value is calculated based on 24 degrees of freedom (df), a statistical term that provides insight into the amount of information the data provides. In this context, a degree of freedom of 24 indicates that there are 25 data points involved in the calculation.

This t value, especially its negative sign, is noteworthy. In the world of statistics, a negative t value indicates that the second observation has a higher mean than the first observation. In this case, it indicates that the average post-test score exceeds the pre-test score, which indicates a real improvement.

Another important finding from the t-test is the p value of less than 0.001. This very small value indicates the statistical significance of the results. In the field of statistics, a p value of less than 0.05 is usually considered statistically significant. With our p value of less than 0.001, it is clear that this difference is not only statistically significant, but also highly significant.

Therefore, the results of this t-test, with the combination of a negative t-value and a very small p-value, clearly show a statistically significant increase from pre-test to post-test scores. This difference is not caused by chance or random variability, but indicates real, measurable and significant improvement. This analysis provides a strong basis for concluding that the intervention or method studied has had a positive impact.

The students' perceptions regarding the use of U-Dictionary in increasing interest in learning English at Madrasah Ibtidaiyah. The researcher will then present a table of post-test tabulation results which will then be analyzed using qualitative content analysis.

The post-test results provide a glimpse into the students' language learning journey, especially their experience with the U-Dictionary application. The majority of students, nine to be precise, indicated that they frequently used U-Dictionary. This shows the popularity of U-Dictionary among students and its acceptance as an effective tool for English language learning. Frequency of use indicates a high level of interaction between students and the application, thereby creating an immersive learning environment.

This intense interaction has a direct impact on students' self-confidence levels. Data revealed that ten students felt their confidence in speaking English increased due to their involvement with U-Dictionary. This increase in self-confidence is an important step towards language acquisition because it encourages more active participation and reduces anxiety related to language learning.

However, it is important to note that this newfound sense of confidence has not fully translated into improved English speaking skills. Most of the students, fifteen in particular, admitted that they spoke English only sporadically, although they used U-Dictionary frequently. This highlights the need for more interactive teaching methods that can facilitate active verbal engagement and thereby, improve their speaking skills.

On the other hand, U-Dictionary has proven to be a very effective tool in helping students understand English vocabulary. A total of thirteen students reported that U-Dictionary greatly facilitated their vocabulary learning process. This increase in vocabulary understanding has a positive impact on students' interest in learning English further. As proof, twelve students expressed high interest in learning English, especially with the help of U-Dictionary.

Therefore, if we analyze the post-test results as a whole, it can be seen that the use of U-Dictionary has a positive influence on students' English learning journey. This not only increases their interest in learning the language but also instills confidence and improves their understanding of vocabulary. The effectiveness of U-Dictionary as a language learning tool is clear and has significant potential in shaping students' English language skills. Although there are some areas that require further strengthening, such as speaking skills, the overall impact is very beneficial.

Based on the t-test results which show a significant difference between the pre-test and post-test scores, it can be concluded that the use of the U-Dictionary application has a positive impact on increasing students' interest and English language skills. The post-test results further confirmed several important findings.

First, U-Dictionary is very popular and frequently used by students. This intensive interaction turned out to have a positive impact in the form of increasing students' self-confidence in speaking English. This finding is in line with previous research (Krismonika & Asi, 2021) which also found that the use of electronic dictionaries can increase students' motivation and self-confidence in learning foreign languages.

Second, although self-confidence has increased, this increase has not been followed significantly by an increase in productive skills, especially speaking. Most students admitted that they only occasionally spoke English even though they had used U-Dictionary. Therefore, a more

Table 2. Post test

| NO | Question | Number of Choices | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | N1 | number 2 | number 3 | number 4 | number 5 | |
| 1 | Frequency of use of U-Dictionary | | | 9 | 10 | 6 | 25 |
| 2 | Confidence level | | 4 | 7 | 10 | 4 | 25 |
| 3 | Frequency of speaking English | | 3 | 15 | 5 | 2 | 25 |
| 4 | Ease of understanding vocabulary | | | 13 | 6 | 6 | 25 |
| 5 | Interest in learning English | | 3 | 3 | 7 | 12 | 25 |
| 6 | Frequency of use of other English applications | | 2 | 6 | 17 | | 25 |
| 7 | Effectiveness of learning English | | | 3 | 10 | 12 | 25 |
| 8 | Skill level | 2 | 10 | | 5 | | 25 |
| 9 | Frequency of use of offline/online English dictionaries | | 8 | 12 | 3 | 2 | 25 |

communicative and interactive speaking learning design is needed so that the positive impact of using U-Dictionary can be maximized, as recommended in previous research (Ayu Made Krisna Dewi Natalia & Ketut Setiawan, 2020).

Third, on the other hand, U-Dictionary has proven to be very effective in increasing students' vocabulary mastery. This finding is in line with research (Polakova & Klimova, 2023) which also found that the use of electronic dictionaries was effective in improving students' mastery of English vocabulary. This increase in vocabulary ultimately has an impact on increasing students' interest and interest in learning English further, as found in previous research (Hossain, 2024).

Overall, it can be concluded that U-Dictionary makes a positive contribution to efforts to increase MI/SD students' interest and learning outcomes in English. Therefore, the use of similar applications is highly recommended in learning English at the elementary level.

## 4. Conclusion

The findings of this research provide strong evidence that the use of the U-Dictionary application has a positive impact in increasing students' interest in learning English at Madrasah Ibtidaiyah. The t-test results showed significant differences between the mean scores*pretest* and a posttest with a fairly small p value (<0.001), thus confirming the statistical significance of this difference. This proves that the U-Dictionary application is effective in increasing students' interest in learning.

Apart from that, the results of the questionnaire explained that students' perceptions were also positive regarding the use of U-Dictionary.The majority of respondents reported using the app frequently and increasing their confidence levels. They also showed improved understanding of English vocabulary and increased interest in learning the language. Most importantly, they found that learning English through U-Dictionary was very effective.

However, it is important to note that despite these positive results, the majority of students do not use English frequently in everyday life and often use other English applications besides U-Dictionary. This highlights potential gaps in the learning process that need to be addressed.

Based on these findings, I suggest that while still using U-Dictionary as the main learning tool, it must be supplemented with additional learning methods. This can include more interactive and communicative activities that encourage students to use English more often in everyday life. Integration of other English language applications can also be considered to provide a more comprehensive learning experience.

In addition, opportunities for students to practice speaking English should be created. This can be achieved through role-playing, debates or conversation clubs. The aim is to go beyond the theoretical aspects of language learning and provide students with practical and real situations of language use.

In conclusion, although U-Dictionary has been established as an effective tool for English language learning, it must be part of a broader and more diverse learning approach to ensure the overall improvement of students' English skills.

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