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# Applying Flipped Classroom Model Using Duolingo Application to Enhance Thammislam Foundation School's Student Learning EFL

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**ABSTRACT**

Numerous research endeavors have been undertaken to formulate a flipped classroom learning model to enhance the caliber of education. However, integrating weblogs with the flipped classroom learning model has yet to garner significant scholarly scrutiny. The primary issue pertains to the need for more students' vocabulary acquisition. Consequently, individuals need help with attempting to engage in English language communication. Acquiring proficiency in a foreign language via the Duolingo platform offers a different and unique learning experience. Every educational system must incorporate a comprehensive set of methodological aspects that ensure the efficacy of the learning process. The elements above encompass monitoring progress, motivation, feedback, and vocabulary. The present study employs a quantitative descriptive research design. The research design used in this study is pre-experimental. This study employs a design that incorporates external variables which have the potential to impact the development of the dependent variable. The research utilized the Duolingo application as a tool for student engagement, accompanied by an observation sheet consisting of questions aimed at enhancing teachers' writing proficiency in the learning process. Additionally, post-test sheets were administered to assess the outcomes of the intervention. There is a total of 14 students classified as active, 14 students classified as moderately active, and 12 students classified as less involved. Based on the examination of student activity data, it can be inferred that 70% of student engagement with the flipped classroom approach, employing the Duolingo application for English language acquisition, falls within the active and moderately active classifications.
***Keywords: Flipped Classroom, Duolingo Application, Learning EFL***

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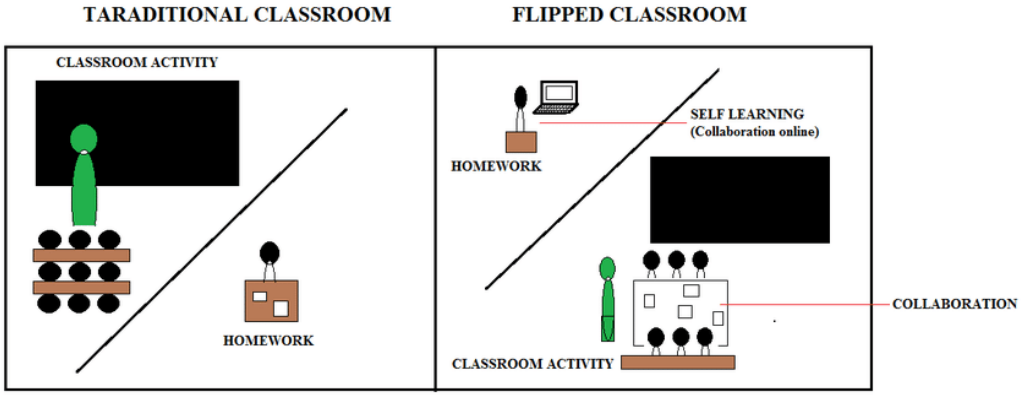
## 1. INTRODUCTION

Indonesia and Thailand have adopted English as a bilingual language alongside their national mother tongues. English is incorporated into the curriculum of junior high schools and high schools in these countries. It is anticipated that students possess the ability to communicate proficiently in the English language. However, many students need help effectively expressing their thoughts and ideas in English. The primary issue pertains to the need for more students' vocabulary acquisition. The individuals in question encounter challenges when engaging in effective English communication. Using Duolingo to acquire proficiency in a foreign language offers a different and unique learning experience. Every educational system must incorporate a comprehensive set of methodological components that ensure the effectiveness of the learning process. The elements above encompass monitoring progress, motivation, feedback provision, and vocabulary development.

Furthermore, within the realm of education, teachers must possess the capacity to innovate and employ diverse instructional approaches and learning frameworks. The statement above is closely associated with the teacher's diligent endeavors to consistently uphold the standard of education, as well as the students' inclination towards engaging in the learning process (Yulietri, 2015). According to Johnson (2013), Flipped Classroom is a strategy educators can provide by minimizing the amount of direct instruction in their teaching practice while maximizing interaction. This strategy utilizes technology that provides additional supporting learning materials for students to access online easily. Flipped Classroom changes the learning instruction model, which usually directs and explanations come directly from the teacher to students, into learning in which directions and explanations can be accessed by students online outside or inside the

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classroom. Flipped Classroom and Flipped Learning are used interchangeably but differ in contextual meaning. Flipping classes can but does not always lead to Flipped Learning (FL). Having students read texts, watch audio-video material, and complete activities outside of class, perhaps in the computer lab or at their homes online or offline, seems like the reverse model. However, to engage in reverse learning, teachers must ensure the learning environment is flexible, as teachers often physically rearrange their learning spaces to carry out group or individual activities. In contrast to the traditional teacher-centered model, where the teacher is the primary source of information, the flipped classroom model shifts to a learner-centered approach, and activities in the classroom are intended to discuss and explore topics in-depth, and these activities also assist students in knowledge construction. (Praveen Sam D, 2016)

**Fig 1. Differences in the Flipped Classroom Learning Model with traditional learning (Praveen Sam D, 2016)**




This notion of learning inside and outside the classroom is supposed to help students display high-level skills professionally. However, classroom-based teaching prepares students only for tests and examinations (Roehl et al. 2013). The main aim of teaching English to students is to develop them to deal with real-life situations in their careers and social life. Therefore, a shift in language learning from classroom to mass is necessary at home. According to Boucher et al. (2013), the time allocated for teaching language in the classroom must be utilized differently in the flipped model. The problem of using time differently in this model is not in the interest of change. However, this is associated with many improvements in teaching and learning levels, i.e. more time for interacting and clarifying texts, more time for intensely discussing ideas, and additional input on material used to study and practice with active learning methodologies. Implementing the flipped classroom approach allows students to engage in learning activities within and beyond the confines of the traditional classroom setting. By utilizing online resources such as educational videos and internet-based materials provided by the instructor, students can review and access course content multiple times. (Syam, 2014). Johnson (2013) posits that implementing the flipped classroom approach allows educators to reduce the extent of direct instruction in their pedagogical methods while concurrently enhancing opportunities for interpersonal engagement among students. This approach employs technological tools to offer supplementary educational resources to students, which can be conveniently accessed online. The Duolingo application is an online platform that can be utilized to facilitate the implementation of flipped classrooms. In addition to this, Duolingo has the potential to support independent study among students. According to Gracia (2013), Duolingo is a freely accessible online platform for language learning. Its primary objective is facilitating language acquisition through various web-based exercises and mobile applications. Duolingo employs a diverse range of techniques and remains current in its approach to language acquisition. This approach can enhance students' comprehension, engagement, and enjoyment of the learning experience by fostering the development of practical learning skills.

Duolingo has many languages where learners can choose which language to learn, such as English, Arabic, Spanish, French, Dutch, and other languages. Duolingo also provides data such as points earned, course overview trees, curtains, and time spent on fabrics. Duolingo is easy to use because its procedure is straightforward, so that Duolingo can be used for all ages. Duolingo is easier to use and more enjoyable, so it will be comfortable as a medium we use in teaching online classes. Duolingo is a free online language platform that provides translation assignments to learn vocabulary and grammar (studying and practicing a given topic) and works to practice pronunciation and listening (Bende, 2017). Using the Duolingo application platform as a medium is expected to help make it easier for students to learn English anywhere effectively, efficiently, and fun in learning Mobile Learning because it is accessed and executed using a device/smartphone. As a language learning application, Duolingo can help someone improve their vocabulary, pronunciation, and grammar knowledge of the foreign language being studied. Duolingo has a reasonable learning strategy with a learning system in the form of a game that can motivate students to learn (Jaskova, 2014: 24). In addition, Duolingo provides vocabulary exercises and opportunities for students to evaluate their knowledge and identify needs to improve learning (Guaqueta & Gerces, 2018) continuously. It can be interpreted that Duolingo is presented as an educational application that can be integrated anywhere to provide new learning experiences for students and is based on the quality of the content. Abdillah and Kurniawan (2021:45) explain that Duolingo offers interactive features and games with other users. In addition, Duolingo has competition and ranking features that make the Duolingo application popular and competitive. Duolingo has several features in the initial appearance of the main menu, such as learning, stories, friends, shop, and settings. Learn is the main menu used for the learning process. The stories menu is a feature used to discuss vocabulary or in a specific context, for example, in a museum context. The friend's menu is used to find study friends by inviting them via e-mail. The shop menu is a menu that contains information about the lingots you have. Lingots are the currency in the Duolingo application and can be exchanged for bonus skills.

Finally, Duolingo has a settings menu, which allows users to monitor their learning progress. This menu visually represents points earned as experience points (XP), which act as a metric for advancing to higher levels. Additionally, users can explore options to learn different languages within this menu. In addition to the primary menu options, Duolingo offers an additional feature, "Duolingo for School," a valuable tool for educators and learners alike. This feature enables teachers to gain insights into the individual challenges faced by students, thereby facilitating targeted interventions to enhance their language proficiency. It is an undeniable reality that a significant majority of individuals possess a strong desire for practicality. The progress made in information technology has heightened our passion for efficiency and functionality. Most of our daily tasks can now be accomplished through electronic devices such as gadgets and smartphones. Gadgets and smartphones allow individuals to engage in various activities, including but not limited to work, shopping, and socialising. Gadgets and smartphones have become necessities in contemporary society. Duolingo is a cost-free digital platform accessible on mobile devices, allowing users to acquire proficiency in foreign languages. Duolingo is regarded as a highly functional and flexible platform for language acquisition due to its various practical, convenient, and comprehensive features. Numerous academic investigations examining the efficacy of Duolingo as an educational tool have consistently reported favourable outcomes. According to several studies (Widyastuti & Kusuma Dewi, 2018; Nursyamsiah, 2021; Budiharto & Syahroni, 2020), Duolingo effectively enhances English vocabulary proficiency.

## 2. RESEARCH METHOD

The research conducted falls under the category of quantitative descriptive analysis. The research design employed in this study is a Pre-Experimental Design. This research uses a design that incorporates external variables which have the potential to exert an influence on the development of the dependent

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variable. The absence of a control class is the underlying cause. One type of Pre-Experimental Design employed in this study is the One-Shot Case Study, wherein a group is exposed to a treatment (X). Subsequently, the outcomes will be duly observed. According to Sugiyono (2018), the independent variable in this study is treatment, while the dependent variable is the result.

## 3. RESULTS AND DISCUSSION

This research was conducted at Thammislam Foundation School. The subjects in this study were all high school students, with 40 students. Data collection techniques used are observation, tests, and questionnaires. The research instrument used was the Duolingo application for student activities, observation sheet questions in the form of improving the writing ability of teachers' learning, and test sheets (posttest). The data analysis technique used in this study is:

### A. Analysis of Student Activity Data

Data from observations of student activity during learning takes place analyzed using the following formula:

$$\text{STUDENT ACTIVITY SCORE} = \frac{\text{SCORE OBTAINED}}{\text{TOTAL SCORE}} \times 100 \text{ (KHOLIQ 2015)}$$

The value of student activity is obtained from the average value of student activity at the first and second meetings. Each student will get a predicate from the value of student activity in the following categories:

**Table 1. Duolingo scores are linked to the Common European Framework of Reference (CEFR), an international benchmark of language proficiency.**

| DUOLINGO TEST SCORE | CEFR LEVEL | PROFICIENCY LEVEL |
|---|---|---|
| 10-55 | A1/A2 | Basic user |
| 60-85 | B1 | Independent user |
| 90-115 | B2 | Independent user |
| 125-160 | C1/C2 | Expert user |

A detailed guide to CERF levels

a. A1 and A2

The candidate has a basic understanding of English words and phrases. They can understand and express themselves in similar situations.

b. B1

Candidates can understand the most important aspects of concrete writing or speeches on regular topics.

c. B2

Candidates can communicate on various topics in English. They are familiar with the basics of concrete and abstract writing. This group of candidates can speak with experts with confidence.

d. C1 and C2

Candidates can understand spoken and written English, including specific English usage scenarios. They can communicate effectively and efficiently in various settings, such as academic, social, and professional.

### B. Data Analysis of Implementation of Learning by Teachers

Data from observations of the implementation of learning by teachers in applying knowledge can be analyzed in the following steps:

Each aspect observed on the observation sheet of the implementation of learning by the teacher uses a score of 1,2,3,4 and 5; data collection is carried out at each meeting, then the average value of each indicator (RTI) that has been observed during two meetings will be sought, the observation indicators are grouped

into six sub-categories (preparation, preliminary activities, core activities, closing activities, time management, and learning atmosphere), after that for each indicator in the observed sub-categories, the average value of the sub-categories (RSI) is sought, the six sub-categories are grouped into four categories (preparation, implementation, time management, and learning atmosphere), find the average value of each category (SSR ) namely dividing the total value of the sub-categories by the number of categories. Then interpret and determine the average for each category (SSR) with the following criteria:
$0.00 \leq SSR < 1.50$: Not Good
$1.50 \leq SSR < 2.50$: Not good
$2.50 \leq SSR < 3.50$: Fairly Good
$3.50 \leq SSR < 4.50$: Good
$4.50 \leq SSR \leq 5.00$: Very Good

**C. Analysis of Student Learning Outcomes at the Cognitive Level (Test)**
Calculating the percentage of completeness of student learning outcomes (h) at each meeting using the formula:

$$\textbf{\textit{Results}} = \frac{\textit{frequency of completeness of learning outcomes}}{\textit{many students}} \times 100\%$$

The percentage is then categorized according to Table 2.

**Table 2. Categories of Cognitive Level Learning Outcomes**

| Category | Percentage |
|---|---|
| $90\% \leq h \leq 100\%$ | Very good |
| $80\% \leq h < 90\%$ | Good |
| $65\% \leq h < 80\%$ | Fairly Good |
| $55\% \leq h < 65\%$ | Not Good |
| $h < 55\%$ | Failed |

## 4. CONCLUSION
The research results obtained are student activity data during learning, data on the implementation of education by teachers, data on student learning outcomes, and student response data. Student activity data can be seen in Table 3.

**Table 3. Student Activity Data**

| Category | The number of students | Percentage (%) |
|---|---|---|
| Active | 14 students | 35 % |
| quite active | 14 students | 35 % |
| less active | 12 students | 30 % |

Table 3 shows that the average assessment of student activity at the first and second meetings was found. There are 14 students in the category of active students, 14 students who are pretty busy, and 12 students in the less active class. Based on the analysis of student activity data, it can be concluded that 70% of student activity with the flipped classroom method using the Duolingo application in learning English is in the active and moderately active categories.

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