

The Development Multimedia for Learning to the Achievement of English Grammar for Senior High School Students in Lampang, Thailand

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Abstract

This research is an academic service project for schools in the service area of Lampang Rajabhat University. The objectives of this research were: 1) to develop multimedia for learning to the achievement of English grammar for senior high school students to be effective. 2) to compare the learning achievement of English grammar by using the average score of 70 percent and 3) to study the English Grammar barriers for Senior High School Students. The sample was selected by means of cluster random sampling. The instruments used in this research were: 1) Multimedia for learning English grammar 2) The test of English grammar with alpha coefficient equivalent to 0.75, discrimination value between 0.27-0.80, and difficulty value between 0.33-0.80 3) Quality assessment form. The statistics used in data analysis were percentage, mean, and standard deviation. The statistics used in the hypothesis test was One Sample Group t-test. The study results were as follows: 1) The multimedia for learning English Grammar for senior high school students indicated that the learning media application was of excellent quality (mean = 81.54) 2) About English Grammar barriers of Thai students were 1. Concept of Tense and Time, 2. Noun, 3. The Position of the Adjective, and 4. Active Voice and Passive Voice. 3) The achievement of students learning by multimedia for learning English Grammar shows that the mean score was 23.50 (78.33 % higher than 70%), the T-test value was 19.524, and Sig.=0.000 (2-tailed).

Keywords: Multimedia for Learning, Learning Achievement, Media Efficiency

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Introduction

Teaching English in Thailand has been a contentious topic in Thai society. Despite having studied English for at least 12 years, including kindergarten, primary, and secondary school, Thai individuals still struggle with language proficiency compared to other Southeast Asian countries. This essay focuses on using Multimedia for Learning to teach English grammar, specifically addressing the structural differences between Thai and English. Thai learners are immersed in a Thai language environment, where they primarily hear, listen, and communicate in Thai. When learning a second language like English, they tend to rely on their knowledge of Thai language structure, leading to errors and misunderstandings with native speakers (Juhana, 2012). The article suggests that teachers should pay attention to tense and time, word order before nouns, adjective placement, modal verbs, and active/passive voice while teaching English to Thai students. The use of multimedia for learning is encouraged to facilitate the understanding of these structural differences. Thai students prefer auditory and kinesthetic learning styles (Prince, 2004). Therefore, Thai teachers should prioritize the integration of multimedia into their teaching methods. Despite their familiarity with English grammar, Thai learners still encounter challenges due to the influence of their native language structure. To help Thai students improve their grammar skills, the article recommends utilizing multimedia development for learning as a helpful tool in the teaching and learning process of English grammar (James, 2014).

Objectives

1. To develop multimedia for learning to the achievement of English grammar for senior high school students to be effective.
2. To compare the learning achievement of English grammar by using the average score of 70 percent.
3. To study the English Grammar barriers for Senior High School Students.

Method

The study was conducted in Grade 11 of Bunyawat Witthayalai School. The student population: consisted of approximately 720 people. The Senior High School Students sampling: 50 students were selected by means of cluster random sampling. The experimental plan One-shot case design (Best & Kahn, 1993). Data analysis: The statistics employed for data analysis were mean (\bar{x}), standard deviation (SD), percentage (%), and t-test.

The experimental plan One-shot case design with 50 samples that Multimedia for Learning obtained (Best, & Kahn, 1993).

X \longrightarrow O

When

X = Using Multimedia for Learning

O = English Grammar skills results

Research Tools

The research The Development Multimedia for Learning to The Achievement of English Grammar for Senior High School Students. The data collection tool for use in research is as follows.

- 1) Interview form about English Grammar barriers: This interview form was created to investigate the unique characteristics of English Grammar for Senior High School Students people's use of multimedia.
- 2) Quality assessment form: Three specialists will utilize it as a Multimedia application quality inspector based on score interpretation; 4.01–5.00 = the most, 3.01–4.00 = very, 2.01–3.00 = moderate, 1.01–2.00 = few, $1.00 \leq$ least.
- 3) The test of English grammar with alpha coefficient equivalent to 0.75

Data Collection

Data were collected from a group of 50 senior high school students. All research processes took about 4 months and were operates as follows:

- 1) Setting process of focus groups, observations, and interviews with sampling groups to study the English Grammar barriers for Senior High School Students.
- 2) Analyze information gathered from focus groups, observations, and interviews to examine the peculiarities of English Grammar for designing and developing multimedia.
- 3) After making improvements with the advice of specialists, the multimedia was taken qualitative evaluations and efficacy testing: 3 experts' qualitative evaluations. They rated the quality of the application that showed the most level of quality.
- 4) Set up multimedia for learning to the achievement of English grammar applications in the classroom.
- 5) Experimental stage with a target group of 50 students, with the test of English grammar to obtain data on the effects of utilizing multimedia for learning to the achievement of English Grammar.

Results

To achieve the aims, The outcomes are as follows:

1) The Results of Analyzing the Information Gathered From Focus Groups, Observations, and Interviews of English Grammar for Designing and Developing Multimedia

Concept of Tense and Time

The concept of tense and time in Thai is not the same as it is in European languages. The words used to show action or verbs do not change their pattern with time. The surface structure remains the same whether discussing the present, past, or future. There are no specific standards for using additional words to explain past, continuing, or future actions. Many teachers should first teach their pupils about time and tension before describing the pattern and shape of tense. Students will become perplexed if a teacher assigns them to do an exercise. They may remember the rule and pattern, but they are unable to apply it in everyday life.

Table 1 Errors Caused by Found in Narrative Writing

Error Types	Mean	Percent (%)
Verb tense	7.32	26.25
Word choice	4.41	12.45
Sentence structure	3.36	10.57
Article	3.08	9.84
Preposition	2.66	8.21
Modal / Auxiliary	2.5	6.53
Singular / Plural form	2.22	5.71
Fragment	1.5	4.11
Verb form	1.48	3.33
Pronoun	1.44	3.25
Run – on sentence	1.21	3.01
Infinitive / gerund	1.04	1.68
Transition	0.93	1.55
Subject – verb agreement	0.75	1.49
Parallel Structure	0.52	1.34
Comparison Structure	0.49	0.68
Total	34.91	100

A common problem in Thai students' writing is incorrect verb tense. The error is explained by stating that there is no concept of time in Thai. Many students are unable to produce the correct sentence concepts in the order in which they appeared in the English sentence. This is the primary distinction between Thai and English. To represent time in English is quite straightforward because there is a particular pattern and usage. Although only 4-5 tenses are utilized in daily life, every native must understand the notion of time. However, there are no verbs or marker words in Thai to represent time systematically. As a result, the high verb tense mistake is on the top of the table 1.

Noun

Another distinction between the English and Thai languages is in the use of grammatical nouns. The error of article usage was ranked fourth. Many Thai pupils, it is indicated, do not grasp nouns and words before nouns in English. Teachers should teach children about the idea of nouns in English, including the distinction between countable and uncountable nouns. Students must first recognize this rule because it is related to other grammar at a high level. Many quantifiers, such as much, many, little, few, a, an, the, and so on, must be employed by the countable and uncountable noun rule. In Thai, nouns are not classed as countable or uncountable, and there is no plural form by adding the morpheme "s" or "es" or changing the form to a plural form like in English. As a result, Thai pupils are unfamiliar with the plural form of the English language. Many of them are unable to correctly employ words before nouns or quantifiers in English. This structure should be taught at the beginning of the lesson in the Thai classroom because it will be the first level of using the correct language. The following is an example of an ungrammatical sentence that Thai students may use when speaking or writing in English.

Thai students may translate this sentence to be as follows:

“I want to buy dog.”

The correct sentence must be:

“I want to buy a dog.”

Most of them fail to put the article "a" before the countable noun "car" since there are no words before nouns in Thai, therefore they transfer this concept to English. It is an example of a mistake caused by first language interference.

The Position of Adjective

An adjective is a word that modifies a noun. The English language places it before the noun and has a specific method for ordering it when there are multiple adjective words before the noun. (Dickins & Edward, 1988). In Thai, it comes after the noun, and there is no set guideline for adjective order. In English, for example, "a big dog" is said. "a big" is an adjective that comes before a noun in English, however, "a dog big" is expressed differently in Thai. Many Thai students think in Thai first and then write or speak in English. As a result, they make certain errors. Many students say "A dog big," which is incorrect in English. Some foreigners may comprehend what they mean, but the grammar is incorrect. Another thing that teachers should mention to their pupils is this.

Active Voice and Passive Voice

The verb form undergoes modification by employing the verb 'to be' along with the past participle or 'be + v.3'. This construction is widely utilized in both written and spoken English. When immersed in a society where English is commonly spoken, we become accustomed to this practice and recognize that the use of passive voice does not carry a negative connotation, but rather emphasizes the subject's activity. In contrast, the Thai language possesses a distinct passive voice structure, which differs from English in terms of conveying the idea of practice. Thai individuals tend to adopt this communication style particularly when expressing negative sentiments. Examples of its usage can be found in newspaper headlines and everyday conversations. For instance, Thais employ the passive voice when discussing topics related to punishment, violence, or traumatic experiences. In Thai, one might say:

“The thief was punished.”

“The police officers were killed.”

However, the passive voice structure is not commonly employed in a positive sense. For instance, Thais do not say, 'That student is invited on stage.' When someone states that a student is invited on stage, it could be misinterpreted as punishment or coercion.

2) The Designing and Developing Multimedia

Designing and Developing Multimedia

Due to the need for English language skill enhancement among students, the implementation of Drill and Practice multimedia has become a preferred format for cultivating proficiency in English grammar. This multimedia approach is specifically designed to emphasize skill training and practice, catering to students' progression from basic to advanced levels of competency. It is particularly prevalent in subjects that necessitate continuous practice, such as English grammar, where consistent practice is essential. In order to enhance speaking,

reading, listening, and writing abilities, the multimedia package encompasses a wide range of resources dedicated to skill development and practice. Through interactive features, users are presented with a variety of questions and exercises that progressively challenge their abilities. Furthermore, the system incorporates a tiered difficulty level, allowing users to gradually reinforce their skills. Reinforcement can also be reinforced through the implementation of diverse incentives and consequences, drawing inspiration from Skinner's work (Skinner, 1971).

The Structure of Drill and Practice Multimedia

The multimedia structure begins with "Program start part" which is an introduction to the program that informs the user of what and how much training content they are accessing. This section is common in all structures. The training option is followed by the "Program work part" Given that the structure of the multimedia training is unique, the program will focus on looping and repeating many times. The procedure for each round of training is as follows.

The item for training has been chosen.

For training, a training list appears.
 ↓
 The user participates in the training process.
 ↓
 User Response Evaluation Program.
 ↓
 Users receive feedback on their work.

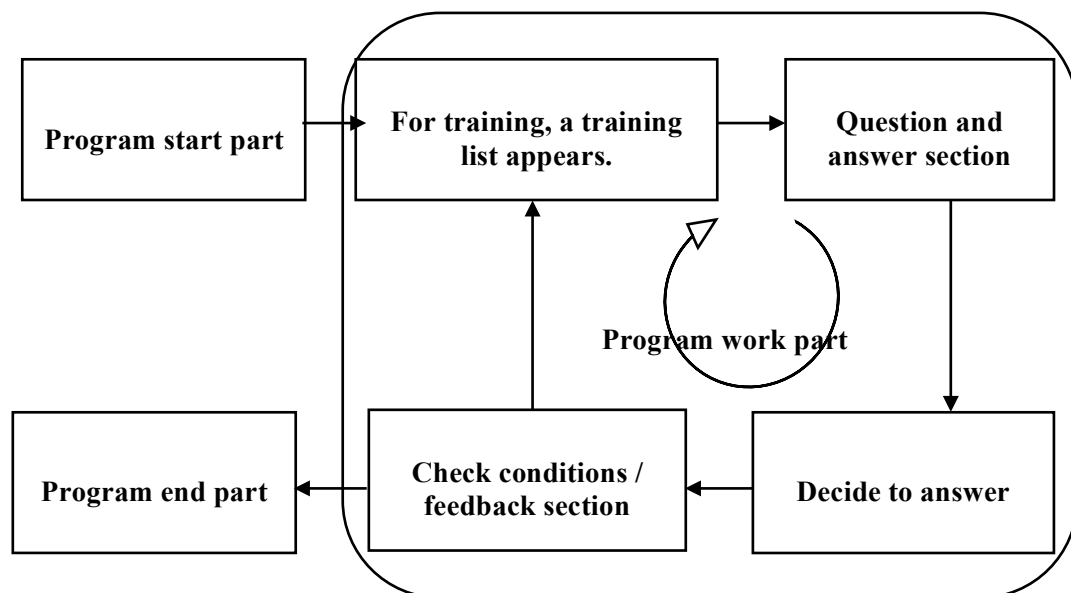


Figure 1. The structure of Drill and practice multimedia (Buakanok, 2021)

Quality Assessment of Multimedia
 Qualitative assessment step

Quantitative data obtained from assessment results can be converted into qualitative data using the average score of answers on each item assessed (Koul, 1984). The criteria for evaluating media feasibility is based on the interpretation of scores. The formula (Riduwan, 2013) was used in the assessment of the learning media:

$$P = \frac{\text{Total score} \times 100}{\text{Number of items}} \times \frac{100}{5}$$

P = Percentage

Total Score = Total sum of questionnaire scores

Number of Items = Total number of items in the questionnaire

100 = Percentage (%)

5 = The highest value for each item

According to the above formula, the assessment scores of the three media experts are as follows: 81.27%, 81.36%, and 82.00% (mean = 81.54) indicate that the learning media application was of excellent quality.

Results of the Media Experiment

The experimental stage with a target group of 50 students, with the test of English grammar to observe the results of 4 skills: 1) Listening 2) Speaking 3) Reading, and 4) Writing. The average score of the participants when taking the skill test was required to be not less than 70% (21 points out of 30).

One Sample T-test

$H_0: \mu = 21$ (The average of skill points is equal to 21)

$H_1: \mu \geq 21$ (The average of skill points is more than 21)

The results are shown in Table 2.

Table 2. Four skills achievement of English grammar.

	Test Value = 0					
	t	df	Sig.(2-tailed)	Mean different	95% Confidence Interval of the Difference	
					Lower	Upper
Score	19.524	49	.000	23.50	22	25

Table 2 shows that the mean score was 23.50, the T-test value was 19.524, and Sig.=0.000 (2-tailed). About hypothesis testing, if Sig. < 0.000 shows, H_0 is rejected and H_1 is accepted.

Summary and Suggestion

Over time, four persistent concerns have been identified among Thai students, which seem to endure despite their long-standing presence. Thai children, starting from kindergarten and spanning throughout high school, dedicated over ten years to studying the English language. Despite being exposed to comprehensive instruction across various English skills, only a

limited number of students achieve proficiency. The following examples illustrate this prevalent trend:

Structure Differences Between Thai and English

Thai has no tense system, and sentence construction differs greatly from that of English. Many words are arranged differently, verbs change when they are employed to describe the passage of time in both present and past acts or events, or nouns change when plural. These forms are difficult for Thai students to understand.

Interference From Thai Language

The influence of the Thai language on the process of learning English is widely recognized as a significant factor contributing to errors among Thai students. Often, they tend to think in Thai before constructing English sentences, leading to a multitude of mistakes in both spoken and written forms. As Thai is their native language, students often incorporate elements of Thai when communicating in English.

Inadequate Practice

Effective language acquisition for learners of any language requires consistent practice. To enhance their language skills, individuals must engage in daily activities encompassing reading, writing, speaking, and listening in the target language, such as English. Numerous resources and media outlets are available to facilitate these practices within their everyday lives. Examples include reading English newspapers, listening to radio news or English songs, writing emails to international friends, and engaging in conversations with foreign tourists. There are abundant opportunities for students to engage in practice. However, Thai students, in contrast, often face a lack of encouragement when it comes to language practice. Additionally, they may exhibit hesitancy or reluctance in communicating in English with individuals who are not familiar to them.

A Word-for-Word Translation

Thai students often rely on the structure of the Thai language when using English, influenced by the interference of their first language. For instance, they may incorrectly state, "I never go to England," instead of the correct English construction, "I've never been to England." Such non-standard English sentences can pose challenges for native English speakers to comprehend. Many Thai students are unaware that direct translations of certain Thai expressions may not accurately convey the intended meaning in English.

Conclusion

Thai students continually encounter persistent challenges when it comes to mastering English grammar. These difficulties stem from their status as non-native English speakers and the limited opportunities for English language immersion in many regions of Thailand. Determining whether the issue lies with the students themselves or the teaching methodologies employed becomes a complex task. To address these challenges effectively, the integration of multimedia as a tool for illustrating grammatical rules and structures during the learning process becomes paramount. Multimedia aids students in comprehending the intricate aspects of English language formation.

However, a mere understanding of grammar alone falls short in achieving proficiency in English usage. It is crucial to integrate grammar instruction with various skill development activities. Students should be encouraged to actively engage in speaking, writing, reading, and listening exercises facilitated by multimedia resources within the classroom. Grammar should be seamlessly incorporated into all exercises that focus on these skills while emphasizing the four key points outlined in this article. By adopting such an approach, students will gain a comprehensive understanding of the English language and improve their overall proficiency.

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