# CHAPTER I

INTRODUCTION

A. Background of Research

Over time, the internet's increasing usage has become the main basis for the development and utilization of technology. Knowledge and information can be accessed and understood more easily if people master the connecting language, English. The use of technology and internet access continues to experience significant increases every day. Based on the data obtained by the researcher from the website datareportal.com with the title 'Digital Around the World', the data shows the following :

Figure 1.1 Internet Usage Graph Over Time

Sources Data :
https://datareportal.com/global-digital-overview
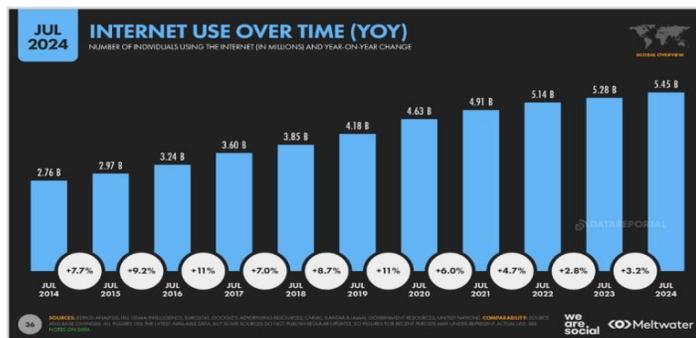
Then, based on supporting data related to internet usage in Thailand taken from digitalmarketingforasia.com with the title '2024 Internet Usage in Thailand', the results are as follows:

Figure 1.2 Internet Usage in Thailand in 2024

Sources Data :

https://www.digitalmarketingforasia.com/2024-digital-marketing-landscape-of-thailand/
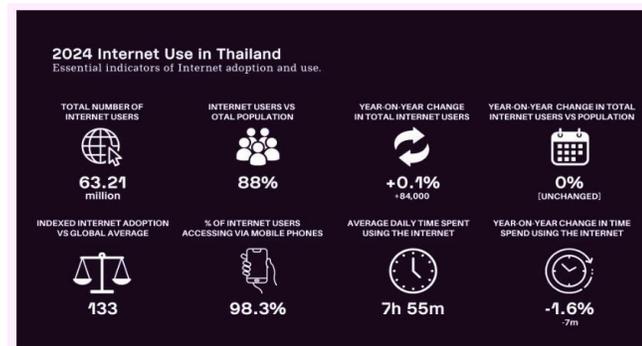
Based on 2024 data, Thailand has 63.21 million internet users, with 88% of the total population connected to the internet. The number of internet users increased by 0.1%, or about 84,000 new users, compared to the previous year, while the percentage of internet users to the population remained unchanged. Thailand's internet adoption rate exceeds the global average with an index of 133, and a large majority, 98.3%, access the internet via mobile phones. This allows the public, especially students, easier and broader access to various online English learning resources. Various learning platforms, applications, and internet-based educational videos, such as YouTube, language learning apps, and online courses, have opened up opportunities for students in Thailand to learn English independently and interactively.

Internet users in Thailand spend an average of 7 hours and 55 minutes online daily, but this time has decreased by 1.6% (about 7 minutes) compared to the previous year. This data indicates the high penetration and adoption of the internet in Thailand and confirms that the internet has become an important part of daily life. With that average daily internet usage time, students have enough time to utilize learning platforms to improve their language skills, whether through formal or informal education. The widespread use of the internet, along with the continuously evolving access to technology, is playing an important role in improving the average level of education English language in Thailand, broadening students' horizons, and preparing them to compete in an increasingly interconnected global environment. Knowledge and information will be more easily accessible and understandable if students master the intermediary language used for communication, which is English. Once students understand and achieve proficiency in English, they will easily open the window to that knowledge and information.

English is not just a tool for international communication in the classroom. However, it is also a key to accessing a wide range of knowledge, technology, and professional prospects in society. Due to its status as a global language that has expanded to all parts of the world since its inception in England's political history, English is essential to attaining educational goals in the field of education itself. To boost international communication and collaboration, several nations and organizations have embraced this standard form of English, which is frequently utilized in academic and professional contexts to guarantee precision and clarity of understanding (Sumartini & Suardana, 2024). When learning a language for academic purposes, people will typically use English. Early on, English facilitated communication between speakers of different original tongues. Later, it was made an official language in several nations, either as a lingua franca, a second language, or a foreign language.

In Thailand, high school students are required to be competent in English to face the difficulties of global society. Even though English is introduced in elementary school as part of the national curriculum, many students still struggle to learn the language.

One of the main causes of Thai students' insufficient English competence, according to Suwanarak & Phothongsunan in (Jeensuk, S., & Sukying, 2021), is their insufficient exposure to the language outside of the classroom. In Thailand's education context, the national curriculum currently used is the Basic Education Core Curriculum B.E. 2008, as stated in the CBE Thailand Competency-Based Education Basic Education Curriculum Development Project. This curriculum sets learning.

Standards that aim to develop students' core competencies in various aspects of life, including the skills needed to live, work, and learn in the 21st century. This curriculum is also designed so that students can have skills that support them in facing global challenges and increasing competitiveness in education and professionals.

According to Lee et al (2023), although English is an important tool in realizing Thailand 4.0, the Thai education curriculum has not produced students who are proficient in English. Thailand is ranked low compared to its neighboring countries, and Pearson Education (2014) ranked Thailand's education system 35th out of 40 countries, while in the 2015 PISA results, Thailand was ranked 59th out of 72 countries. Jeensuk & Sukying (2021) also highlighted the need for changes in Thailand's education system due to inadequate results.

Figure 1.3 The Learning Curves 2014

GROUP 1 AT LEAST ONE STANDARD DEVIATION ABOVE THE MEAN

COUNTRY	Z-SCORE	RANK	CHANGE IN RANK FROM 2012	CHANGE IN Z-SCORE FROM 2012
KOREA	1.30	1	1	0.07
JAPAN	1.03	2	2	0.14

GROUP 2 WITHIN HALF TO ONE STANDARD DEVIATION ABOVE THE MEAN

COUNTRY	Z-SCORE	RANK	CHANGE IN RANK FROM 2012	CHANGE IN Z-SCORE FROM 2012
SINGAPORE	0.99	3	2	0.15
HONG KONG-CHINA	0.96	4	-1	0.05
FINLAND	0.92	5	-4	-0.34
UNITED KINGDOM	0.67	6	0	0.07
CANADA	0.60	7	3	0.05
NETHERLANDS	0.58	8	-1	-0.01
IRELAND	0.51	9	2	-0.02
POLAND	0.50	10	4	0.08

GROUP 3 WITHIN HALF A STANDARD DEVIATION ABOVE OR BELOW THE MEAN

COUNTRY	Z-SCORE	RANK	CHANGE IN RANK FROM 2012	CHANGE IN Z-SCORE FROM 2012
DENMARK	0.46	11	1	-0.04
GERMANY	0.41	12	3	0.00
RUSSIA	0.40	13	7	0.14
UNITED STATES	0.39	14	3	0.04
AUSTRALIA	0.38	15	-2	-0.08
NEW ZEALAND	0.35	16	-8	-0.22
ISRAEL	0.30	17	12	0.45
BELGIUM	0.28	18	-2	-0.07
CZECH REPUBLIC	0.27	19	3	0.07
SWITZERLAND	0.25	20	-11	-0.30
NORWAY	0.21	21	5	0.10
HUNGARY	0.17	22	-4	-0.16
FRANCE	0.17	23	2	0.04
SWEDEN	0.17	24	-3	-0.06
ITALY	0.11	25	-1	-0.03
AUSTRIA	0.10	26	-3	-0.05
SLOVAKIA	0.09	27	-8	-0.23
PORTUGAL	0.04	28	-1	0.03
SPAIN	-0.08	29	-1	0.01
BULGARIA	-0.26	30	0	-0.03
ROMANIA	-0.44	31	1	0.16

Figure 1.4 The Learning Curves 2014

GROUP 4 WITHIN HALF TO ONE STANDARD DEVIATION BELOW THE MEAN

COUNTRY	Z-SCORE	RANK	CHANGE IN RANK FROM 2012	CHANGE IN Z-SCORE FROM 2012
CHILE	-0.79	32	1	-0.13
GREECE	-0.86	33	-2	-0.55
TURKEY	-0.94	34	0	0.30

GROUP 5 AT LEAST ONE STANDARD DEVIATION BELOW THE MEAN

COUNTRY	Z-SCORE	RANK	CHANGE IN RANK FROM 2012	CHANGE IN Z-SCORE FROM 2012
THAILAND	-1.16	35	2	0.30
COLOMBIA	-1.25	36	0	0.21
ARGENTINA	-1.49	37	-2	-0.09
BRAZIL	-1.73	38	1	-0.08
MEXICO	-1.76	39	-1	-0.16
INDONESIA	-1.84	40	0	0.19

Sources Data :
https://issuu.com/pearsonmiddleeast/docs/thelearningcurve2014/

Figure 1.5 The Latest Thai PISA Results

Sources Data :
https://www.kenan-asia.org/blog/education/thai-education-pisa-results/

Based on this data, the study concluded that although the Thai national curriculum covers eight core learning areas, including technology and information, no specific regulation integrates Artificial Intelligence (AI) into the formal learning system at the high school level. Therefore, this study focuses more on a smaller scale, namely analyzing the impact of AI use on English learning from the perspective of high school students who actively use AI-based applications. This approach aims to provide insight into how AI improves English skills outside the formal curriculum system. Poonpon et al (2022) identified that one of the main causes of low English language competence of Thai students is minimal exposure to English outside the classroom environment. English has become a dominant global communication tool, especially in the digital era, where almost all information and technology are English-based.

Due to technological advancements, English education in Thailand is starting to provide promising results. Students can study the language flexibly and affordably using interactive AI application platforms such as Babbel and Duolingo. Research by Derakhshan et al. (2020) indicates that artificial intelligence in English instruction can enhance student engagement, accelerate literature understanding, and provide more profound feedback.

Despite its significant potential, less research has been conducted to evaluate the effects of AI implementation accurately on Thai high school students' English proficiency. This study aims to evaluate the impact of AI utilization in English instruction on Thai high school students' writing, speaking, and grammatical comprehension skills.

B. Identification of Research Problems

Considering the previous context, the problem of this research is:

1. For what extent does the use of AI technology affect the English proficiency of high school students in Thailand, as measured by researcher developed assessment ribric adopted by TOEFL?
2. How do students respond to the use of rule-based AI-based applications in the English language learning process?
3. What are the challenges faced by students in using AI technology to improve their English skills?

C. Research Objectives

This research was conducted to:

1. Evaluating the impact of AI used technology on the improvement of English proficiency among students secondary school in Thailand.
2. Analyzing secondary school students' perceptions of the impact AI applications in English language learning.
3. Identifying the challenges and obstacles faced by students in using AI technology to learn English.

D. Scope and Limitations of Research

The scope of this research is the area of implementation of a study that includes population, variables, data collection methods, and analysis techniques (Nasution, 2003). In addition, the scope of the study also includes a limitation made by the researcher himself related to aspects of the study, such as location, time, and subjects (Cresswell, 2014).

This study was conducted in Thailand, focusing on public and private high school students who actively use AI-based applications to learn English. The scope of the study includes English language skills, such as speaking, writing, reading, listening, and grammar. However, this study did not compare the effectiveness of AI learning with conventional methods in depth.

E. Research Benefits

The expected benefits of this research are:

1. For the education sector: Providing new insights into application of artificial intelligence technology to teach English and how this technology can be optimized to enchance quality of language education.
2. For students: Helping students understand the role of AI technology in enhancing their English language skills and motivating them to make the most of it.
3. For future researchers: To serve as a reference for further studies related to AI technology and English language training in countries where English isn't the primary language (EFL or English as a Foreign Language)