

***The Design and Development Application for Learning  
an ASEAN Language on Social Media***

Pensri Pukkasenung, Rajabhat Rajanagarindra University, Thailand

The European Conference on Sustainability, Energy & the Environment 2017  
Official Conference Proceedings

**Abstract**

This paper proposes a new method for learning a mutually accepted ASEAN language on social media for Thai students under the Association of Southeast Asian Nations or ASEAN Declaration for ASEAN Community (ASEAN Political and Security Community – APSC, ASEAN Economic Community – AEC, ASEAN Socio - Cultural Community – ASCC). This paper addresses the design and development of an application for learning a mutually accepted ASEAN language on social media by creating an ASEAN Link application with evaluation of satisfaction and achievement of learning goals. A sample of 100 participants from Rajabhat Rajanagarindra University was selected by purposive sampling. The experiment was conducted in the second semester of 2016, 4 days per week, one hour per day. The test was conducted on a social network, and implemented in the classroom. The comparison between the students learning by traditional methods and learning by an ASEAN Link application was conducted and it was found that the students who learned by an ASEAN Link application achieved much more positive results.

Keywords: ASEAN Link, social media, application, language, design and development

**iafor**

The International Academic Forum  
[www.iafor.org](http://www.iafor.org)

## **Introduction**

In 2016, Thailand entered the ASEAN Community. It has 10 States — Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. 1 observer, Papua, New Guinea. The ASEAN Declaration states that the aims and purposes of the Association are: (1) To accelerate the economic growth, social progress and cultural development in the region through joint endeavors in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian nations, and (2) To promote regional peace and stability through abiding respect for justice and the rule of law in the relationship among countries in the region and adherence to the principles of the United Nations Charter. In 1995, the ASEAN Heads of State and Government reaffirmed that, “Cooperative peace and shared prosperity shall be the fundamental goals of ASEAN.”

The mutually accepted language of the ASEAN community is English. At present, the Thai people have a disadvantage in terms of language, specifically English. As well as the national language of neighboring countries. When entering the ASEAN Economic Community, there may be problems communicating in matters of trade with member countries. At this point, it is considered to be a weakness of the Thai people who must plan, and be encouraged, to develop skills using English and neighboring languages to effectively communicate with member countries of the ASEAN Community.

Therefore, in order to promote the support of learning the mutually accepted ASEAN language for Thai students, the researchers designed and developed the application of an ASEAN Link by using interactive communication via a smartphone in the sticker style that is used as a greeting in everyday life. It is audio visual, and expresses the mood of communication of the cartoon character format.

Statistical studies of digital communications in Thailand reveals that 68.05 million individuals out of the total population have a mobile connection. 82.78 % are using a social media application. On Facebook, up to 32% and LINE, up to 29%. As a result, the researchers designed and developed the application for learning a mutually accepted ASEAN language via social media. They selected the Cambodian language as a pilot project for ASEAN Learning.

This research is a pilot project for learning a mutually accepted ASEAN language from stickers. It consists of 3 languages: Thai, English and Cambodian. It is hoped that learning the language from the ASEAN Link application will enable students to learn the Cambodian and English language in an enjoyable manner, and to use it in everyday life.

## **Objective**

1. Design and development of an application for learning a mutually accepted ASEAN language
2. Comparison of achievement testing between the learners who study by the traditional model and the proposed model.
3. Evaluate the efficacy and satisfaction of the ASEAN Link application.

## ASEAN Link Application

ASEAN Link Application concept:

### a) ASEAN's official language:

English is the official language of the ASEAN community. A result, the people in the ASEAN community must learn English language skills for effective communication. This paper focusses on a Thai-English-Cambodian model of language combinations. The concept of an ASEAN Link application is shown in figure 1.

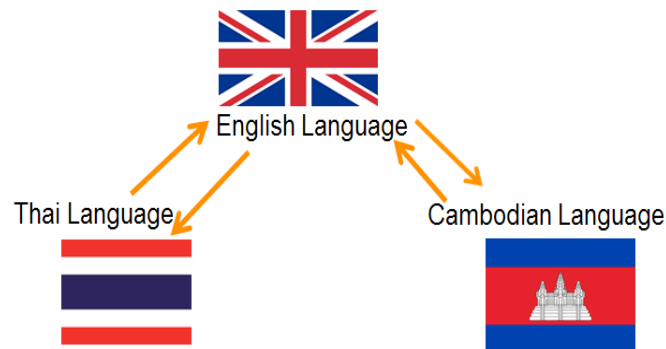


Figure 1: Translation of Thai Language and Cambodian Language

### b) Sticker ASEAN Link:

The component of a sticker from the ASEAN Link consists of 4 parts: A National flag, a word from the English language, a pronunciation, and a cartoon from the ASEAN Link of each country. The detail of sticker from the ASEAN Link is shown in figure 2.

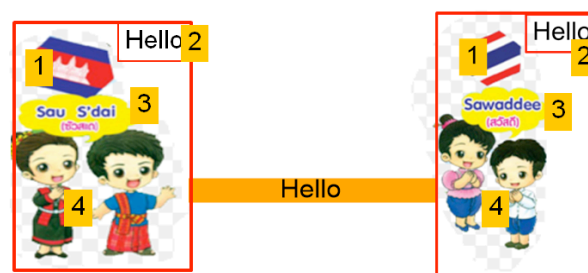


Figure 2: Components of a sticker from the ASEAN Link

### c) Logo of Application ASEAN Link:

Figure 3 shows the details of logo of application in an ASEAN Link.

1) ASEAN Link Logo symbol is ten stalks of golden rice referring to the ties of the countries in the region. The ten Southeast Asian countries together in fellowship is shown by the solidarity of the red circle. The white and blue represents the union of the letters in the word "ASEAN". The blue beneath the image represents a commitment to work together for peace, unity, stability and progress of the ASEAN

member countries. All colors shown in the label of ASEAN are important in the flag.

ASEAN member countries.  
Blue stands for peace and stability.  
Red stands for courage and progress.  
White stands for innocence.  
Yellow stands for prosperity.

- 2) The text “Link” refers to the communication amongst the ASEAN population.
- 3) The “Chat” icon signifies that the ASEAN population can interact through the Link application.
- 4) The “Green Border” signifies that all of the ASEAN member states are prosperous.

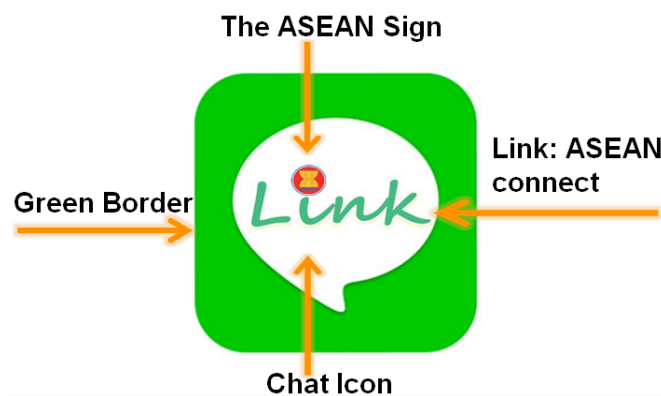


Figure 3: Logo of the ASEAN Link Application

#### d) Screen of the ASEAN Link Application:

The design of the ASEAN Link Application shows the screen on a smartphone. To the left is a start application link, and the right shows the chat screen.

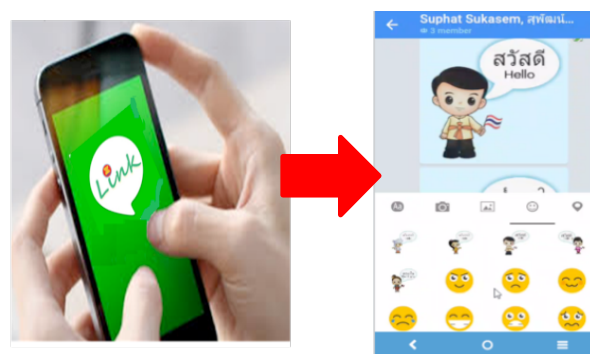


Figure 4: Screen of the ASEAN Link Application

#### Architecture of the ASEAN Link Application

The proposed model of the ASEAN Link Application consists of three parts for communication and exchanging messages such as, sender, receiver, and a

transmission channel. The architecture of this is client/server (figure 5), and has two parts: hardware and software. Requirements are shown below.

**1. Hardware Requirement:**

Client: Android Operating System mobile phone version 5.0 or above

**2. Software Requirement:**

Apache HTTP Server: HTTP Server for Web Application Deployment (PHP)

PHP: Programming Language for Web Application

Google Firebase for server-side storage Ionic Framework with Android SDK for Mobile Application Development

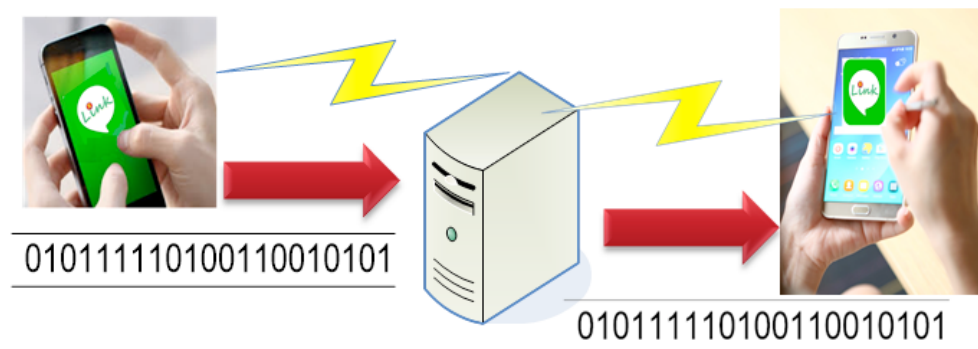


Figure 5: Architecture of the ASEAN Link Application

**Experiments**

The details of this experiment :

**a) Experimental concept:**

Figure 6 shows the experimental concept of this proposal. We start at the pre- test phase of the experimental group and add the control group, then input the treatment, ie: the mutually accepted ASEAN language, (learned traditionally) for the control group, and the ASEAN Link Application for the experimental group. Finally, a post-test both of groups.



Figure 6: Concept of the experiment

## b) Experimental Diagram:

The diagram of the experiment is divided into two groups. Group A is a new method of learning which is achieved by application of the ASEAN Link, combined with testing and evaluation of the application. Group B is a traditional learning system which is achieved by documenting the mutually accepted ASEAN language, and testing before learning. This concept is shown in figure 7.

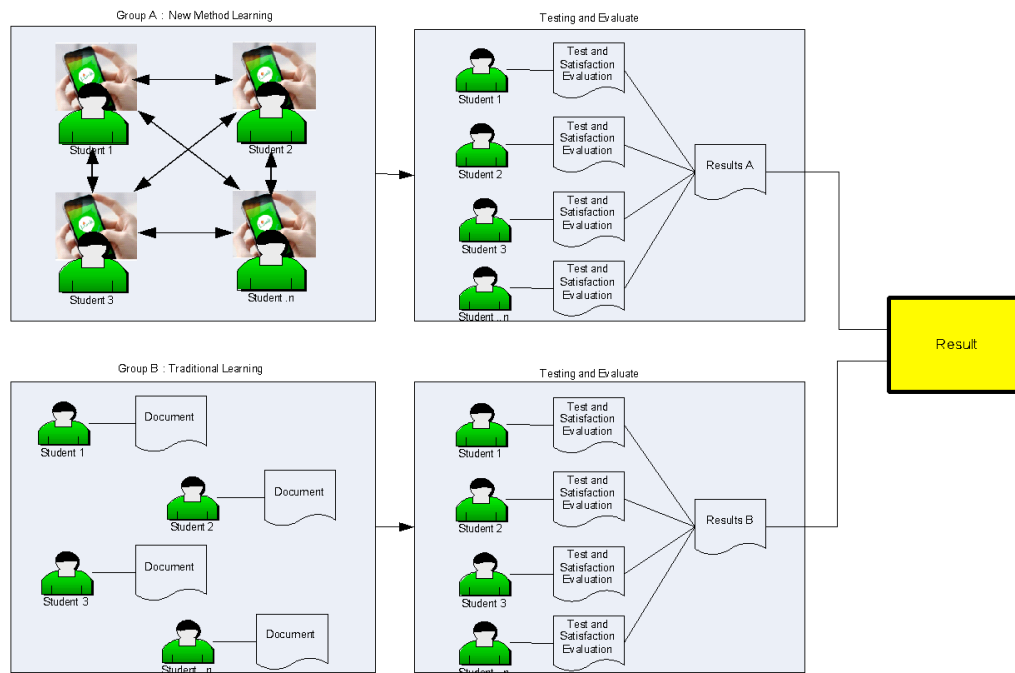


Figure 7: Diagram of the experiment

## c) Steps of the experiment:

1. Dividing the students into two groups, fifty participants per group, consisting of a control group and an experimental group. The students were comprised of members of the first year of Rajabhat Rajanagarindra University.
2. Pre-test the ASEAN language (Thai-English-Cambodian) both of groups.
3. The control group learns the ASEAN language, (Thai-English-Cambodian) by the traditional method, and the experimental group learns the ASEAN language via the ASEAN Link Application. The experiment was conducted in the second semester of 2016, 4 days per week, and one hour per day. Finally, a post-test of both groups.
4. Evaluate the achievement tests.
5. Evaluate the satisfaction of the proposed methods.

## d) Method and measures:

The method of evaluating the achievement tests using the statistic values below. The flow of calculations of this process in the experiment are shown in figure 8.

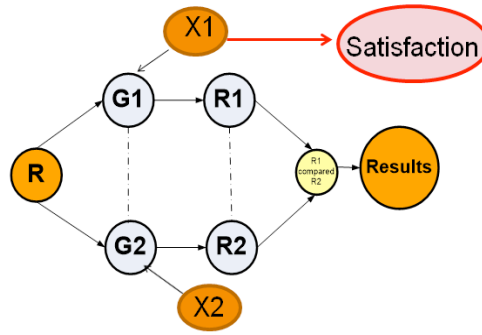


Figure 8: Flow of the experiment

## 1. Notation:

$R$  = Average of achievement tests of the experimental group and control group before the experiment.

$X1$  = Previous achievement tests of the experimental group.

$G1$  = Average of achievement tests of the experimental group after the experiment.

$X2$  = Previous achievement tests of the control group.

$G2$  = Average of achievement tests of the control group after the experiment.

$R1$  = Adding the percentages of the achievement tests of the experimental group after the experiment.

$R2$  = Adding the percentages of achievement tests of the control group after the experiment.

$Results$  = The difference of achievement tests of the experimental group and the control group after the experiment.

$n1$  = The number of participants in the experimental group.

$n2$  = The number of participants in the control group.

## 2. Formula:

$$R = \frac{\sum_{i=1}^{n1} x1 + \sum_{i=1}^{n2} x2}{(n1+n2)} \dots\dots\dots(1)$$

$$G1 = \frac{\sum_{i=1}^{n1} x1}{(n1)} \dots\dots\dots(2)$$

$$G2 = \frac{\sum_{i=1}^{n2} x2}{(n2)} \dots\dots\dots(3)$$

$$R1 = \frac{(G1-N) \times 100}{(n1)} \dots\dots\dots(4)$$

$$R2 = \frac{(G2-N) \times 100}{(n2)} \dots\dots\dots(5)$$

$$Results = R1 - R2 \dots\dots\dots(6)$$

### 3. Measure:

Measure of user satisfaction on a 5-point scale as in the table below:

Extremely Satisfied	Satisfied	Neutral	Dissatisfied	Extremely Dissatisfied
5	4	3	2	1

### Results

The results of this experiment were divided into two parts: the achievement test of experimental group in comparison with the control group, and the experimental group satisfaction in the ASEAN Link Application .

#### The achievement test of experimental group comparison with control group

The difference between the results of the achievement tests of the experimental group and control group after the experiment equals 36.58%. The details are in Table 1.

The average of previous achievement tests of the experimental group and the control group equals  $R = 40.25\%$ . The achievement tests of the experimental group equals  $x1 = 59.75\%$ , The achievement tests of the control group equals  $x2 = 45.00\%$ . The average of achievement tests of the experimental group after the experiment equals  $G1 = 19.50\%$ , Average of achievement tests of the control group after the experiment equals  $G2 = 4.75\%$ . Adding the percentages of achievement tests of the experimental group after the experiment equals  $R1 = 48.45\%$ . Adding the percentages of achievement tests of the control group after the experiment equals  $R2 = 11.87\%$ .

**Table1.** The results of the achievement test

$R$	$X1$	$X2$	$G1$	$G2$	$R1$	$R2$
40.25%	59.75%	45.00%	19.50%	4.75%	48.45%	11.87%

From Table 1. Statistics revealed that the achievement tests of the experimental group after the experiment obtained better results than the control group. So, by extension, the ASEAN Link Application is shown to support the ASEAN language learning module, (Cambodian language).

#### The satisfaction in Application ASEAN Link of the experimental group

The results of survey of the experimental group who were using the ASEAN Link Application revealed that six items which provided satisfaction consist of ease of use, ease of installation, the features of the application, the abilities of the application, the suitability for support in learning the mutually accepted ASEAN language, and overall satisfaction. The details show in Table 2.



**Table2.** The results of survey of the user satisfaction in ASEAN Link Application

No	Item	Mean	Description
1	Ease of use	4.50	Satisfied
2	Ease of installation	4.60	Satisfied
3	The features of the application	4.00	Satisfied
4	The abilities of the application	4.10	Satisfied
5	The look and feel of the application	3.10	Neutral
6	The ability to collaborate	3.05	Neutral
7	The security of the application	2.50	Dissatisfied
8	The suitability for support in learning a mutually accepted ASEAN language	4.40	Satisfied
9	Overall satisfaction	4.45	Satisfied

### **Discussion and Conclusions**

The result of the achievement tests revealed that the student who learns by the ASEAN Link Application on social media obtains the greater achievement than the traditional method. Also, the overall satisfaction in the ASEAN Link Application is very high. However, this paper focusses on the Cambodian language, which is only a segment of the ASEAN language base. In the future the author will be expand the ASEAN stickers of neighboring country's languages.

### **Acknowledgement**

This publication is based in part on work supported by Rajabhat Rajanagarindra University.

## References

ASEAN secretariat. (2008). *ASEAN Economic Community Blueprint*. Public Affairs Office. The ASEAN secretariat, Indonesia.

International Labour Organization and Asian Development Bank . (2014). *ASEAN Community 2015. Managing integration for better jobs and shared prosperity*. Thailand.

Shaojung, S. W. (2016). *More Than Words? The Effect of Line Character Sticker Use on Intimacy in the Mobile Communication Environment*. Social Science Computer Review. Vol 34, Issue 4, 2016.

Pathomchaikup, T., & Sombultawee, K. (2016). *The sticker line character's influence- affecting Brand Recall of Gen Y in Nakhonpathom*. al Faculty of management science, Silpakorn University . Thailand.

Derks, D., Fischer, A. H., & Bos, A. E. (2008). *The role of emotion in computer-mediated communication: A review* . Computer in human behavior ,24, 766-785.

Krisanee, S. Y.,& Chayanya. (2016). *Usage of LINE Application, Satisfaction and Capability for Bangkok Citizen* National Academic Conference. (2016). Faculty of Communication Arts and Innovation Management National Institute of Development Administration, Bangkok, Thailand.

Nakmethee, T. (2014). *Communication behavior of officers from governmental organizations in Mueng district of Phitsanulok through the use of application, Line*. Thesis. Naresuan University. Thailand.

**Contact email:** pensri.puk@csit.rru.ac.th

---