THE DEVELOPMENT OF MATHEMATICS TEACHERS' ENGLISH CLASSROOM LANGUAGE USAGE BY USING ELECTRONIC BOOK.

Teeraporn Plailek[1] & Weerayuth Plailek[2]
[1]Faculty of Education, Suan Sunandha Rajabhat University, Bangkok, Thailand
[2]Demonstration School, Suan Sunandha Rajabhat University, Bangkok, Thailand
E-mail: teeraporn.pl@ssru.ac.th[1], weerayuth.pl@ssru.ac.th[2]

ABSTRACT

English classroom language is very essential for teaching and learning activities. The electronic book or e-book is one of the various tools to enhance teachers' English communication in class. This study aimed to develop Mathematics Teachers' English classroom language usage by using electronic book, and to study Mathematics Teachers' opinions toward electronic book. The participants consisted of 3 Mathematics teachers at Demonstration School, Suan Sunandha Rajabhat University. The instruments were the electronic book, the supervision forms, the questionnaires and the interview. The data were analyzed by the applications of mean, standard deviation, conclusion and description.

The study's findings revealed that English classroom language usage of Mathematics teachers was in a high level (mean = 3.73, S.D. = 0.59). The highest average was "Mathematics teachers use English classroom language in class" (mean = 4.33, S.D. = 0.57). For Mathematics Teachers' opinions toward electronic book, the result showed that Mathematics Teachers' opinions was in a high level (mean = 4.20, S.D. = 0.57). When considering the part of content, it revealed that, "the contents are accurate and appropriate for the students' (mean = 4.67, S.D. = 0.58). For the design, it showed that "the pictures, colors, font sizes are appropriate and interesting" (mean = 4.00, S.D. = 0.00). For the benefit, it illustrated that "the electronic book is convenient to use anywhere or anytime and Mathematics teachers are able to adapt the sentences from electronic book to be as a model for communication" (mean = 4.67, S.D. = 0.58). For Mathematics teachers' opinions from the interviews, it revealed that the electronic book benefits the teachers who do not have English basic knowledge, it enhances the teachers' self-confidence in English communication, it's very convenient to use. However, the sounds are too fast and there are not various sentences in the electronic book.

Keywords: English classroom language usage, Electronic book, Mathematics teachers

INTRODUCTION

In the globalized world, English is playing a very important role in serving as a key determinant to develop English teaching in non-English speaking countries. Thai government has recognized the importance of this issue and has prescribed English language for education curriculum in all levels of Thai education in order to encourage the students to communicate to foreigners [1]. According to the Ministry of Education's policy, most schools open the English Program or Bilingual Program to support the students' capacity in English. As a consequence, most schools need to hire foreign teachers, and in doing this, they have to carve out high salaries to the foreign teachers. To avoid this reality of paying higher salary to foreign teachers, Thai teachers who are good at English and who are able to use English for communication have to teach the students in English Program or Bilingual program. However, some Thai teachers who do not have any experiences in teaching these programs

still get some troubles in their teaching especially they lack Mathematics or Science vocabulary which is based on technical terms.

From the observation and interview of Mathematics, Science, and Social Studies teachers who are teaching Grade 1-3 students at Demonstration School, Suan Sunandha Rajabhat University, it revealed that most of them got the above mentioned challenges because they do not have any experiences to teach academic subjects in English. Furthermore, they are not able to speak fluently because they do not have more chances to speak English. This problem is consistent to Abigail's study which indicated that one reason why the English language speaking ability is low is the lack of sufficient opportunity to speak English in and outside the school [2]. Moreover, they needed the guidelines or examples of sentences to be as models for them to learn and practice English classroom language.

An electronic book, also known as an e-book, is a digital publication that can be read on a computer or multiple devices [3]. Electronic books consist of texts, images, or sounds that can be link to the website, and can interactive to the learners [4]. Furthermore, electronic books enhance learners to remember and understand the content effectively [5].

According to the above, there are many advantages in learning by using electronic books. Moreover, there are many electronic books that have the content about classroom language on the internet that allow people who are interested to search, learn, and practice all the time. However, electronic books about specific subjects have not been produced. For this reason, the producing of an electronic book about classroom language including the examples of sentences related to the content is considered and Mathematics subject is focused in this study. This study proposes an electronic book of English Classroom Language for developing Mathematics teachers of grades 1-3 students. The electronic book will be beneficial to Mathematic teachers as a model for Mathematics teachers to practice and enhance their confidence in communication. Moreover, the electronic book is designed to be very convenient for them to practice how to communicate in English classroom effectively.

MATERIALS AND METHODS

1. Participants

The participants selected by purposive sampling technique consisted of 3 Mathematics teachers who are teaching in grades 1-3 at Demonstration School, Suan Sunandha Rajabhat University.

2. Instruments

The instruments applied for data collection were the electronic book, the supervision forms, the questionnaires and the interview.

3. Data collection

The electronic book created by the researcher was recommended to Mathematics teachers. Then the Mathematics teachers practice classroom languages including the examples of sentences related to Mathematics technical terms. After that, the Mathematics teachers were supervised by two English teachers and one foreign teacher for English classroom language usage. Finally, the questionnaires and the interview were given to the Mathematics teachers.

4. Data analysis

The data obtained from the supervision forms and the questionnaires were analyzed by the application of mean and standard deviation. The data obtained from the interview were collected by conclusion and description.

RESULTS AND DISCUSSION

The findings were purposed based on the objectives. They were as follows:

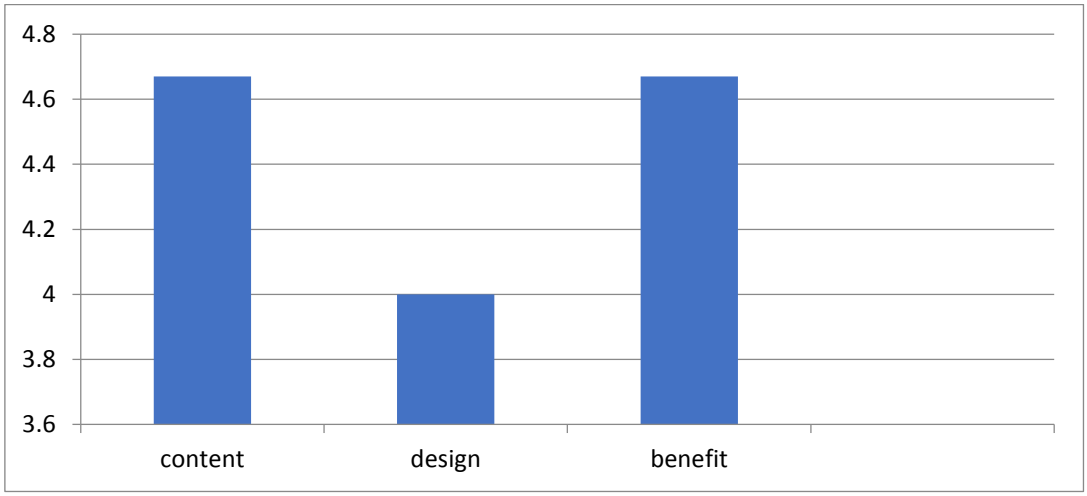
1. English classroom language usage of Mathematics teachers

Table1 English classroom language usage of Mathematics teachers

Topics	$\bar{X}$	S.D.	Opinion rates
1. Mathematics teachers use English classroom language in class	4.33	0.57	High
2. Mathematics teachers are able to adapt the sentences from electronic book as a model for communication	4.00	0	High
3. Mathematics teachers are able to communicate correctly	4.00	0	High
4. Mathematics teachers have confidence in using English for communication	3.33	0.57	Average
5. Mathematics teachers are able to communicate fluently	3.00	0	Average
Total	3.73	0.59	High

The study's findings revealed that English classroom language usage of Mathematics teachers was in a high level (mean = 3.73, S.D. =0.59). When considering each item, it found that "Mathematics teachers use English classroom language in class" was in the highest average (mean = 4.33, S.D. =0.57). Next, "Mathematics teachers are able to adapt the sentences from electronic book as a model for communication and they are able to communicate correctly" (mean = 4.00, S.D. =0.00).

2. The opinions of Mathematics teachers toward electronic book



The Mathematics Teachers' opinions were in a high level (mean = 4.20, S.D. =0.55). When considering each parts of electronic book: content, design, and benefit, it revealed that, "the contents are accurate and the language is appropriate for the students' levels" was in the highest average (mean = 4.67, S.D. =0.58). For the design, it found that "the pictures, colors, fonts sizes are appropriate and interesting" were in a high level (mean = 4.00, S.D. =0.00). For the benefit, it showed that "the electronic book is convenient for using in

anywhere or any time and Mathematics teachers are able to adopt the sentences from electronic book as a model for communication" were in the highest level (mean = 4.67, S.D. =0.58).

3. The opinions of Mathematics teachers toward electronic book from the interviews

For the Mathematics teachers' opinions from the interviews, it revealed that the electronic book benefits the teachers who do not have English basic knowledge or start to use English to communicate in the classroom and the electronic book also enhances the teachers' self-confidence in English communication. Convenient and ease of use was applauded by the teachers due to the fact that the E-book provides examples of sentences for the teachers to learn. However, this electronic book has some minor limitations such as the sounds being too fast and lack of enough variations of sentences in electronic book.

CONCLUSION

1. English classroom language usage of Mathematics teachers was in a high level and the highest average was Mathematics teachers use English classroom language in class. Next, Mathematics teachers are able to adopt the sentences from electronic book as a model for communication and they are able to communicate correctly. From the result above, it is a testament that the electronic book can help develop Mathematics teachers to communicate correctly. This is consistent to Janjira Inpichai's study [6] which claimed that the electronic books have images and sounds which can be as models for learners to learn and practice.

2. Mathematics Teachers' opinions were in a high level. When considering each parts of the electronic book: content, design, and benefit, it revealed that, the contents are accurate and the language is appropriate for the students' levels. For the design, it found that the pictures, colors, fonts sizes are appropriate and interesting. For the benefit, it showed that the electronic book is convenient for using anywhere or any time and Mathematics teachers are able to adopt the sentences from electronic book as a model for communication. The result is consistent to Daroonwan Kaewngarm's study [7] which showed that the satisfaction of content, design, and benefit were at the highest average. And for the satisfaction about benefit, it is a confirmation to Jiraporn Petpisatsak's study [8] which indicated the benefit of electronic books as a good toll for learners to use for review and practice all the time.

3. For the Mathematics teachers' opinions from the interviews, it revealed that the electronic book benefits the teachers who do not have English basic knowledge or start to use English to communicate in the classroom. The electronic book enhances the teachers' self-confidence in English communication, and that it's very convenient for the teachers to use. The E-book also provides examples of sentences for the teachers to learn. However, this electronic book has some limitations such as the sounds were too fast and there were not enough various sentences in electronic book. The results corresponds to Janjira Inpichai and Jiraporn Petpisatsak's study which indicated that the benefit of electronic books has an effective role for learners to be able to use them for review and practice all the time which is very convenient for learners. Moreover, practicing the language all the time can help Mathematics teachers to have more confidence in their speaking.

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