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เรื่อง แจ้งผลการพิจารณาบทความเพื่อตีพิมพ์ในวารสาร

เรียน คุณสพลเชษฐ์ ประชุมชัย

ตามที่ท่านได้ส่งบทความเรื่อง “The English EBook of Khaokoh: Switzerland of Thailand to Develop Highland Students’ ONET Reading Skills in Khaokoh District of Phetchabun Province” เพื่อตีพิมพ์ลงในวารสารวิชาการแพรวากาฬสินธุ์ มหาวิทยาลัยกาฬสินธุ์ นั้น บัดนี้บทความของท่านได้ผ่านการตรวจความถูกต้องทางวิชาการ โดยกองบรรณาธิการและผู้ทรงคุณวุฒิตามกระบวนการพิจารณาเรียบร้อยแล้ว กองบรรณาธิการยินดีที่จะดำเนินการตีพิมพ์บทความของท่านลงในวารสารวิชาการแพรวากาฬสินธุ์ มหาวิทยาลัยกาฬสินธุ์ ปีที่ 7 ฉบับที่ 1 ประจำเดือน มกราคม-เมษายน 2563 ISSN 2351-0455 (Print) ISSN 2697-4886 (Online)

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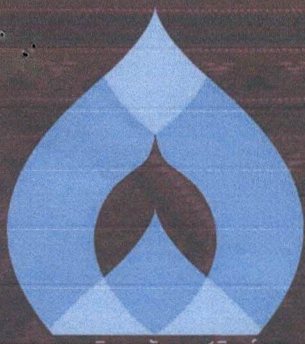
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หลวงพ่อดำ
พระคู่บ้านคู่เมืองจังหวัดกาฬสินธุ์

The English EBook of Khaokoh: Switzerland of Thailand to Develop Highland Students' ONET Reading Skills in Khaokoh District of Phetchabun Province

Sapolahcet Prachumchai¹

Abstract

The current study aims at investigating an efficiency of the English eBook entitled "Khaokoh: Switzerland of Thailand" according to the standard criterion 70/70, comparing the highland students' ONET designed reading achievement in Khaokoh district of Phetchabun province, and examining the highland student's instruction satisfaction toward the created English eBook. In this study, 39 of grade 3 students at Romkaokhaokoh Secondary School of the Phetchabun Primary Educational Service Area Office 2 in Khaokoh district, of Phetchabun province are the samples of the study. The 4 instruments including an eBook, a pretest, a posttest, and a satisfaction questionnaire are the tools to collect data. The obtained data were analyzed through frequency percentage, mean, standard deviation, t-test at the statistically significant level .01. The research results indicate that the efficiency of the English eBook of "Khaokoh: Switzerland of Thailand" meets the standard criterion at 70.67/75.04, and the level of the highland student's instruction satisfaction toward the English eBook is highest ($\bar{x}=4.65$, S.D.=0.15), and the highland students' learning achievement between the pretests and the posttests are different at the statistically significant level .01 ($p<0.001$).

Keywords: eBook, English, Reading Skills, ONET, Highland Students, Khaokoh, Phetchabun

Introduction

Nowadays learning is more than lecturing or one-way teaching; on the other hand, students need more interactions with teachers. Technologies and the internet allow students to access information directly, all the time, and fast instead of waiting only for the teachers. Students require teaching methods and media more than books; therefore, teachers have to accept what have changed and develop oneself for the new trend of the 21st century learning skills. No doubt. English is a useful tool to open a new horizon of world learning; meanwhile, technologies, the internet, and media all are the skills that teachers and students have to develop together. The act of Thailand's national education 1999 (amended issue 2010) notes the importance of media for education in item 64 of category 9 Educational Technology that "The state must promote and support the production and development of textbooks, academic books, other publications, materials, equipment and other educational

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technologies. The learning process must focus on the learners. The learning process must be consistent with the current trend of the electronic age. Students of all ages have the opportunity to learn from the knowledge sources around them, including teachers, material teachers, nature teachers, and the environment.”

The current education management model has progressed with new techniques in all disciplines. Technological advances, especially computers, play an important role in communication and education management. Especially in the field of computer education, it is an important helper in both administration, service and teaching. Computer assisted multimedia or instruction (CAI) can be used as something that is inevitable in teaching development and learning process in the future (Department of Curriculum and Instruction Development, 2001 : 9). Meanwhile, Thailand’s National Economic and Social Development Plan No. 11 specifies the goal of improving the quality of education to be upgraded to international standards, extend knowledge to innovation and opportunities for access to education and a variety of learning patterns with quality, flexibility, variety, and easy access in line with culture, way of life and occupation in each locality by focusing on student development. The hardcopy textbooks no longer will have not been the mainstay in the classroom, the same material can now be read as electronic books (eBooks) via computer, notebooks, electronic tablets, electronic readers, and smart phones will replace (D’Ambra, Wilson & Akter, 2013).

What we expect is probably opposite to what we gain, especially Thai student’s English learning outcome. According to the ONET report of academic year 2018 of the National Institute of Educational Testing Service (NIETS), the secondary school students obtained 29.45% of the full score. This showed how we had failed in English teaching time after time and also signaled that we cannot rely on the teachers only. It needs to improve policies, schools, stakeholders, teachers, teaching methods, environment and teaching media; all of these mainly aim to improve the students. In the 21st century, new technologies are able to support the teachers and promote the students’ learning ability, especially CAI and eBooks. The rapid developments of computers are leading to the emergence of an information-based society. These changes have created great impacts in our lives as well as the way we learn and think. If computers used appropriately can facilitate students’ collaboration and enhance knowledge building. Almost all teachers and students would be willing to use new technology in teaching and studying. The infusion of computers into education is gaining popularity as an effective platform for enhancing the teaching and learning process (Bharathy, 2015 : 11). As you can see, the students need more options to learn and practice English in and out the classroom. Teaching involving technologies would be a great choice for teachers and students. And, if lessons are created from the stories or what the students know in their area, the way they get close to English will be easier and challenged.

According to the trend and importance of modern teaching materials, teachers always look for additional media to promote and motivate students’ learning intention and capacity. Electronic books (e-book/eBook) or computer assisted instruction (CAI) is optional and updatable. Nowadays e-books and CAI are designed with various functions which can insert graphs, photos, motion pictures, sounds and art letters. Also, these multimedia lessons can stimulate students’ intentions, especially who are different in

learning ability and personal learning backgrounds. Boonroeng (2103 : 770), Poengphoo (2009 : 71-72), and Wuttisart (2010) had created the efficient multimedia e-books and CAI and finally all agreed these multimedia materials both online and offline were able to improve students' learning ability, especially in the classrooms that have the students who are different in learning ability. As you can see, eBooks and CAI can be taught and studied both in and after school. Khamkaew (2010 : 65) confirmed that the students' learning achievement got improved and their satisfaction leveled high after learning with the created multimedia eBook. Wheeler (2014 : 75) guaranteed that an eBook, eBook with audio, and a print book displayed on statistically significant differences in reading comprehension score after determining the students' posttest scores; on the contrary, their pretest scores were different from the posttest scores after the both were compared. Therefore, creating an efficient multimedia eBook or CAI to develop students' learning ability is vital and challenged in order to bring all the students across the bridge of stupidity.

As all of the importance and reasons mentioned above, the development of the English eBook of "Khaokoh: Switzerland of Thailand" to develop highland students' ONET reading skills in Khaokoh district of Phetchabun province is set up to find out an instructional media's efficiency and to improve the students' reading achievement. In addition, the English multimedia e-book can help the students understand and be aware of their own areal history, beliefs, cultures, and tourism attractions in Khaokoh district of Phetchabun province because the contents will involve 10 amazingly important spots around the area.

Objectives of the Study

1. To create and find out an efficiency of the English eBook entitled "Khaokoh: Switzerland of Thailand" according to the standard criterion 70/70.
2. To compare the highland students' ONET designed reading achievement in Khaokoh district of Phetchabun province.
3. To examine levels of the highland student's instruction satisfaction toward the English eBook entitled "Khaokoh: Switzerland of Thailand."

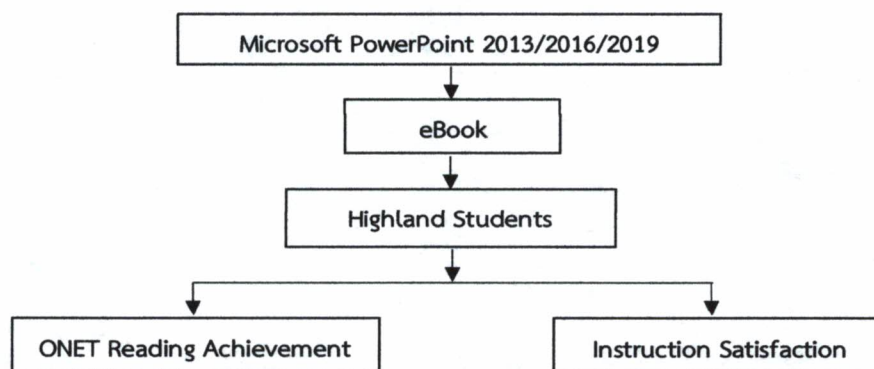
Hypotheses of the Study

1. An efficiency of the English eBook of Khaokoh: Switzerland of Thailand to develop the highland students' ONET reading skills in Khaokoh district of Phetchabun province meets the standard criterion 70/70.
2. The ONET reading achievement of the highland students in Khaokoh district of Phetchabun province is improved after comparing the pretest scores and the posttest scores.
3. The highland student's instruction satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand is over a high level.

Conceptual Framework

According to the reviewed literature and theories, the researcher designed the following conceptual framework for the study

1. The independent variable was the English eBook of Khaokoh: Switzerland of Thailand.
2. The dependent variables consisted of 1) learning achievement on English reading skills of the grade 3 secondary school students, and 2) the students' instruction satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand.



Research Methodology

1. Population and Samples

1.1 The population used in the current study was the grade 3 secondary school students of the Phetchabun Primary Educational Service Area Office 2 in semester 2 of academic year 2018.

1.2 The samples were randomized by purposive sampling: 39 students from 2 classes at Romkaokhaokoh School, Khaokoh district, Phetchabun province.

2. Variables

2.1 The independent variable was the English eBook of Khaokoh: Switzerland of Thailand.

2.2 The dependent variables consisted of 1) learning achievement on English reading skills of the grade 3 secondary school students, and 2) the students' instruction satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand.

3. Research Instruments

3.1 The English eBook of Khaokoh: Switzerland of Thailand – 10 units with lesson exercises: Unit 1 Phasonkaew Monastery, Unit 2 Khaokoh Windturbine Field, Unit 3 Khaokoh Palace, Unit 4 Holy Kanchanapisek Pagoda, Unit 5 Weapon Museum of Itti Base, Unit 6 Khaokoh Sacrifice Memorial, Unit 7 Khaokoh Highland Agricultural Station, Unit 8 Route 12, Unit 9 Bang Ra Chan Rapids, and Unit 10 Sritdit Waterfall. The created English eBook was at a good level ($\bar{x} = 4.38$, S.D. = 0.54) according to 3 experts' measurement; meanwhile, each issues inside the e-book was indicated as follows: Content and Story Continuity ($\bar{x} = 4.33$, S.D. = 0.51), Media Quality ($\bar{x} = 4.26$, S.D. = 0.70), and Pretests and Posttests ($\bar{x} = 4.55$, S.D. = 0.50).

3.2 The pretests to check students' recognitions, understandings, applications included 10 issues with 12 questions each. Their difficulty was at 0.60 - 0.80, discrimination was between 0.27 and 0.80, and reliability was at 0.78

3.3 The posttests to check students' recognitions, understandings, applications included 10 issues with 12 questions each. Their difficulty was at 0.60 - 0.80, discrimination was between 0.26 and 0.53, and reliability was at 0.73. 3.4 A questionnaire to check the highland student's instruction satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand comprised 3 issues: Content, Instructor, and Student's Understandings. The reliability of the whole questionnaire was at .86; meanwhile, by each issue, Content with 6 satisfactory items was at .88, Instructor with 7 satisfactory items was at .81, and Student's Understandings with 4 satisfactory items was at .90.

4. Data Analysis and Statistics

4.1 The English eBook of Khaokoh: Switzerland of Thailand was created and found out its efficiency by the standard criterion 70/70.

4.2 The highland students' ONET designed reading achievement was compared between the total scores of the pretests and the posttests through the statistics of mean, standard deviation, and dependent samples t-test at the statistical significant level .01.

4.3 The highland student's instruction satisfaction toward the English eBook was surveyed and analyzed through the statistics of frequency percentage, mean and standard deviation.

Results

In this study, the author analyzed an efficiency of the English eBook of Khaokoh: Switzerland of Thailand to develop the highland students' ONET designed reading achievement in Khaokoh district of Phetchabun province according the standard criterion 70/70 as shown in table 1.

Table 1 Efficiency based on the standard criterion 70/70 (n=380)

Testing Tools	Frequency	%	E ₁ /E ₂
Exercises	160	71	70.67
Posttests	120	75	75.04
Mean (S.D.)	4.38	0.54	Good

According to table 1, the finding showed E₁: the efficiency of instructional process – total scores of the lesson exercises was 70.67, and E₂: the efficiency of learning achievement – total scores of the posttests was 75.04.

After using The English eBook of Khaokoh: Switzerland of Thailand, the 39 highland students' ONET designed reading achievement between the pretest and the posttest scores was compared as shown in table 2.

Table 2 Comparison of the highland students' ONET designed reading achievement (n=39)

N	Full score	Obtained scores		Mean		T	p-value
		Pretest	Posttest	Pretest	Posttest		
39	120	1630	3512	41.79	90.05	42.293*	<0.001

* Different at the statistically significant level .01

According to table 2, the finding showed the values of t was at 42.293, which was less than .01; it unaccepted H_0 but accepted H_1 ($\mu A \neq \mu B$ means pretest scores are different from posttest scores). Meanwhile, the mean of the pretest scores was at 41.79, and the mean of the pretest scores was at 75.04.

Finally, table 3 showed the results on the highland student's instruction satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand. The satisfaction issues were mainly about Content, Instructor, and Student's Understandings.

Table 3 Instruction satisfaction toward the English eBook (n=39)

Satisfactory Issues	n	\bar{x}	S.D.	Level
Content	39	4.83	0.82	Highest
Instructor	39	4.95	0.50	Highest
Student's Understandings	39	4.75	0.67	Highest
Total	39	4.65	0.15	Highest

According to table 3, the overall level of the highland student's instruction satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand was highest ($\bar{x}=4.65$, S.D.=0.15). Considering each of the satisfactory issues, Instructor leveled highest in average ($\bar{x}=4.95$, S.D.=0.50); Content ($\bar{x}=4.83$, S.D.=0.82) and Student's Understandings ($\bar{x}=4.75$, S.D.=0.67) leveled highest.

Conclusion

1. The efficiency of the English eBook of Khaokoh: Switzerland of Thailand to develop the highland students' ONET reading skills in Khaokoh district of Phetchabun province was 70.67/75.04.

2. The reading achievement of the highland students in Khaokoh district of Phetchabun province between the pretest and the posttest scores was different at the statistically significant level .01.

3. The highland student's instruction satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand leveled high ($\bar{x} = 4.63$, S.D. = 0.48).

Discussion

Understanding the basic reading of English is important for the students of secondary school level but reading skills for an ONET test is even more important. However, almost every Thai student find it difficult to understand English reading because of lacking vocabulary, word meanings and functions, etc. Many of them are still rely on their memory power to excel in English in the concerned situations such as lack of English teachers, old-fashioned teaching styles, insufficient English hours, and unsupportive teaching materials. The Computer Assisted Teaching and Learning (CATL) methods are marked by the usage of computers in teaching and learning process. That is why eBooks and e-learning pay important roles in this study.

According to the results of the study, the author required to discuss the following subjects:

1. The Efficiency of the English eBook of Khaokoh: Switzerland of Thailand

The English eBook of Khaokoh: Switzerland of Thailand which was created to develop the highland students' reading achievement in Khaokoh district of Phetchabun province in order to prepare them for the ONET of 2019 met the standard criterion 70/70 at 70.67/75.04. Then, the origin of each number was explained. 70.67 of the first criterion (E_1) was affected by the samples' the highest averaged scores of the exercise from Unit 9 Bang Ra Chan Rapids (458/624) and the lowest one from Unit 5 Itti Base (423/624). The first problem signaled about lack of vocabulary, knowledge and information about the stories created. The second one went about the test design like an ONET test which looked difficult to the samples. The last one was about a technical support because some computers were broken; therefore, it affected time and speed of doing the tests. Again, E_2 , the second criterion, showed the highest averaged scores of the posttests from Unit 9 Bang Ra Chan Rapids (373/468) and the lowest ones from Unit 5 Itti Base and Unit 7 Khaokoh Highland Agricultural Station which all were the same (342/468). This finding related to Kong-iad et al.'s paper on the English eBook of Hobbies and Free Times for the primary school grade 5 which met the criterion 70/70 at 76.81/75.14 (2018 : 1732), Boonroeng's 83.18/82.74 of the obtained efficiency of the eBook of Reading Comprehension (2013 : 770), and Thepsung's 83.55/82.80 of the Unit of English Social and Cultures to Enhance English Reading Comprehension (2014 : 11). According to the obvious efficiency of this study and the related studies, it reflected that the process of creating any teaching innovations needed to be controlled. It was vital that any eBooks required to be tried out before a real implementation with the target samples because it was believed that if eBooks were tried out and then edited and improved, they would meet the aims of the subject. In conclusion, if eBooks met their efficient quality, students' learning achievement would get better.

2. The Highland Students' ONET Designed Reading Achievement

Basically, when a researcher conducts a research about creating or designing teaching media, he uses a pretest and a posttest as the same version; therefore, it is nearly 100% that the results of a posttest are different from the pretest. However, the posttests of 10 units which were created and used in this study were the different versions of the 10-set pretests. According to the characteristics of the pretests and the posttest, they were similar: recognition, comprehension, and application. Also, by numbers of questions, they were indifferent: 12 questions per test per unit–120 questions of 10 tests of 10 units. After 10 pretests and 10 posttests, the 39 samples' averaged scores were found that 41.79 of the pretests and 90.09 of the posttests, which was 48.40% in difference. By dependent sample t-test, the value was $t = 42.293$; it denied H_0 but accepted H_1 ($\mu_A \neq \mu_B$). In description, the samples first did the pretests without a bank of words, knowledge, and information about the stories; therefore, they failed the first time. Meanwhile, their posttest scores came positive because they started to remember and got used with the lessons, words, styles of exercises and questions.

3. The Highland Student's Instruction Satisfaction toward the English eBook

After the learning process by using the eBook of Khaokoh: Switzerland of Thailand, the satisfaction about the contents, the instructor and the learners' understanding was asked. According the analysis of the samples' satisfaction toward the English eBook of Khaokoh: Switzerland of Thailand, the samples were highest satisfied ($\bar{x}=4.65$,

S.D.=0.15) which was relevant to the satisfaction results of Ket-M (2013 : 291) on the eBook of Food and Drinks (\bar{x} =4.44, S.D.=0.57) and Boonroeng (2013 : 777) on the eBook of Reading Comprehension (\bar{x} =4.54, S.D.=0.66). This was able to explain that the eBook opened an equal opportunity to read and access the information anytime; also, the students could revise the lesions at both school and home. The eBook was considered as one of the useful self-learnings.

Contributions and Directions for Future Research

Managerial Contributions

1. The eBook of Khaokoh: Switzerland of Thailand can be learnt by Grade 4-6 high school students because there are some vocabulary words applied from their lessons.
2. This eBook can facilitate teachers when they are officially busy because students can access and do self-learning.

Theoretical Contributions and Directions for Future Research

1. A further study on the creation of an English eBook may include various reading contents such as signs, labels, short stories, novels, and cartoon strips to create eBooks for different student levels in lower secondary schools with different interesting sources.
2. A further study may compare students' achievement in reading between a created eBook and an e-learning process so that students can see how effectively and efficiently they perform.

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