

Usage Application of Multimedia for Learning Values of Thai Literature to Develop Learning Achievement for High School Students

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Abstract

This qualitative research had designed multimedia materials for efficient learning of Thai Literature in high school students. The created multimedia materials were based on four classical Thai Literature, including Niras-phukhao-thong; Phra-aphai-manee; Lilit-taleng-phai; and Ma-tha-na-pha-tha. 540 Thai high school students, from three schools, were experimented in using the designed materials. Scores of learning achievement of students after using the multimedia were significantly high, 0.05 statistic level, compared to the pre-test. Eight processes of producing the multimedia materials were: 1) producing the storyboard; 2) storyboard reviewing by scholars; 3) storyboard revising; 4) discussion on contents and media; 5) multimedia materials designing; 6) production of the materials; 7) materials assessment by scholars; and 8) adjustment and completion of the materials. Evaluation of the completed materials, by scholars, was excellent and efficient for using in class.

Keywords: Multimedia, Learning Achievement, Thai Literature

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Introduction

The current information technology society, compiling of modern knowledge and broad communications technology, assists people to access knowledge and self-development through various learning materials and knowledge resources. The 2020 - 2022 strategic plan of the Fund for Educational Technology Development, the second strategy, stated three measures in applying information and communications technology (ICT) for teaching and learning in order to achieve the strategy as the following: 1) to promote and enhance opportunity to and equality of efficient education for all-age learners and the public by digital technology (or Digital Society). 2) To create media and compile media banks; digital resources; and media convergence for lifelong learning accessible by the public through telecommunication and broadcasting systems. 3) To develop potentiality of the public to apply digital technology usefully and creatively and to be able to analyze and digest information of the broad and free digital society. (Secretarial Office, Fund for Educational Technology Development, Ministry of Education. 2020: 46-47)

To conform teaching of Thai language to the strategic plan above, information and communications technology (ICT) and educational technology are required, for example Computer Assisted Instruction (CAI); Web Based Instruction (WBI); Electronic Learning (e-learning); Mobile Learning (m-learning), and so on. The popular and most used technology applied for teaching and learning is multimedia, which refers to the use of computers and software to convey meanings through various media, such as colorful text; graphic pictures; motion pictures; sound effects; and videos. This multimedia technology could be interactive by users controlling or reacting to the media through keyboards; mouses or pointers. (Pallop Piriyasurawong. 1999: 12) Multimedia seems to make lessons lively and interesting.

Three merits of multimedia materials include: 1) they allow learners to respond promptly to lessons, and reactions could be assessed right away. 2) Multimedia materials effectively occupy attention of learners and assist them to consequently achieve learning objectives. 3) They are handy for both teachers and learners; also some multimedia materials could differentiate learners since they emphasize on individual learning or teaching oneself. Creating multimedia materials is significant; they are required to correspond to the lessons and learning objectives. For learning Thai literature, various contents and objectives are studied, including aesthetic and social values and importantly the moral of stories. Producing multimedia materials for learning Thai literature would be greatly beneficial for appreciation of Thai literature and effectively motivate awareness of its three aspects of values, aesthetic; social; and moral, for human lives.

Based on stated statements, the researchers desired to create multimedia materials for learning Thai literature in order to gain high learning achievement for high school students. The research question aimed to find out how multimedia materials for learning Thai literature affect the learning achievement of high school students.

Research Objectives

1. To create standardized multimedia materials for learning Thai literature of high school students
2. To develop learning achievement of high school students in Thai literature by efficient multimedia materials

Research Hypothesis

1. The created multimedia materials for learning Thai literature is standardized, achieving the benchmark of 80/80
2. The post-test learning achievement of the sample group in Thai literature after application of the created multimedia materials is higher than the pre-test

Scope of Research

1. Population and Sample Group

- 1.1 Population – 540 high school students, 270 from M1 – M3 levels and 270 from M4 – M6 levels.
- 1.2 Sample group – the population was purposively selected from three schools including Rachawinit Bangkane School, Bangkok; Ratanathibate School, Nontaburi; and Rachawinit Suvarnabhumi, Samutprakarn.

2. Scope of Content

Four classical Thai literature were selected for designing multimedia materials, including Niras-phukhao-thong; Phra-aphai-manee; Lilit-taleng-phai; and Ma-tha-na-pha-tha.

3. Related Variables

- 3.1 Primary variable – the created multimedia materials of Thai literature
- 3.2 Dependent variable – the higher learning achievement of Thai literature of the high school students after using the created multimedia materials

Terms and Definitions

1. Development of learning referred to changes of forms; methods; techniques; steps; and processes of learning and teaching to be more efficient.
2. Values of Thai literature referred to three aspects of value, including aesthetic; social; and moral, students gained after learning literary works
3. Multimedia materials referred to composing of various media, text; images; animated pictures; sound; and videos, through computing processes aiming to interactively convey meanings to learners and assist them to achieve learning objectives.

Research Methodology and Processes

1. Research tools

- 1.1 an evaluation form of multimedia materials for learning Thai literature
- 1.2 exercises in the form of multimedia materials for learning Thai literature
- 1.3 pre-test and post-test forms on multimedia materials for learning Thai literature

2. Research processes

- 2.1 Storyboards on learning classical Thai literature, four titles, were designed and created as multimedia materials.

- 2.2 The multimedia materials were assessed and commented by scholars.
- 2.3 Completed multimedia materials were produced and ready for being applied on the sample groups.
- 2.4 The multimedia materials on four classical Thai literature were used after the sample groups completed the pre-test, and then the post-test was evaluated.

Expected Benefits

Efficient multimedia materials on four classical Thai literature, increasing learning achievement, were expected to be obtained.

Research Results

1. Multimedia materials production and assessment

1.1 Production of the multimedia materials

Firstly, the storyboard presenting contents of the four classical Thai literature, in the scope guided by research consultants, was made by experienced teachers of Thai language and educational technology experts. Then, resources were gathered for the production. Typical forms and techniques used in producing the multimedia materials were captions, graphic pictures, cartoons, animations, photos, motion pictures, and videos; and sound recording of poems reading and voices of narration. Many computer programs were applied in creating the completed materials, for example the Photoshop; video making; sound mixing; animation creating; interactive making; and flash animation, etc.

1.2 The designed multimedia materials

Each of four classical Thai literature was distinctively studied and designed in multimedia forms; details were as the following.

1.2.1 Niras-phukhao-thong

The route and its narration according to the poems in *Niras-phukhao-thong* were made in a multimedia map form showing the journey from Bangkok to Ayudhaya along Chaopraya River. Also, a matching game was designed as exercises.

1.2.2 Phra-aphai-manee

A video presenting a visit to the Thai Human Imagery Museum in Nakornprathom guided by Sinsamut, a character in *Phra-aphai-manee*, focusing on characters and stories of the literature was made. A designed matching game in multimedia form was added as exercises.

1.2.3 Lilit-taleng-phai

Parts of *Khan Kluay*, a 3D computer-animated film, relating to King Naresuan the Great were made as video clips to present stories and contents of *Lilit-taleng-phai*. Multiple choice and subjective exercises were added, as well.

1.2.4 Ma-tha-na-pha-tha

Video clips from the play *Ma-tha-na-pha-tha* were made to present stories and contents of the literature; and exercises, multiple choice and subjective, were also added.

1.3 Assessment of the multimedia materials

When all created multimedia materials were produced, three scholars, research consultants, provided evaluations and comments, details as the table number 1.

Table 1: The Results of the Assessment of the Quality of Mixed Media for Learning the Value of Thai Literature

Aspects of Assessment	Title 1	Title 2	Title 3	Title 4	Average score
1. Contents					
1.1 Academic faithfulness	4.67	4.33	4.33	4.67	4.50
1.2 Objectives-oriented	4.00	4.33	4.67	4.67	4.42
1.3 Content adequacy for learners	4.67	4.67	5.00	4.33	4.67
Aspects of Assessment	Title 1	Title 2	Title 3	Title 4	Average score
2. Language usage					
2.1 Grammatical correctness	4.00	4.67	4.33	4.33	4.33
2.2 Language appropriateness	4.67	4.33	4.00	4.67	4.42
3. Presentation techniques					
3.1 Righteous and understandable	4.33	4.33	4.00	4.33	4.25
3.2 Attractive and approachable	4.67	5.00	5.00	4.33	4.75
3.3 Efficient sound effects	4.67	5.00	4.33	4.33	4.58
4. Creativity					
4.1 Creative, unique and inspiring	4.67	4.67	4.33	4.67	4.59
4.2 Presentable and beneficial	4.67	5.00	4.33	4.33	4.58
Average score	4.50	4.63	4.43	4.47	4.51

After the assessment, all comments were taken to improve the created multimedia materials and to make them completed for the application with learners. According to the evaluation, it was noticeable that all created multimedia materials for the four classical Thai literature gained high scores in all aspects. Two causes noted were 1) the created multimedia materials were trendy, matched interests of learners and made the classical literature lively on computer media. 2) The research consultants particularly concerned on the storyboard presenting contents of the four literature. Comments, corrections and suggestions were provided in detail and thoroughly,

so the created multimedia materials profoundly presented three major values, aesthetic; social; and moral, of the four classical literature.

2. Application of the Created Multimedia Materials

The created multimedia materials were applied with the sample group, purposively selected, of 540 students from three high schools, including Rachawinit Bangkane School, Bangkok; Ratanathibate School, Nontaburi; and Rachawinit Suvarnabhumi, Samutprakarn. The sample group was divided into two levels: 270 students (90 from each school) were M1 to M3 level; another 270 students (90 from each school) were M4 to M6 level.

2.1 Efficiency of the Multimedia Materials

Assessments of the created multimedia materials were evaluated twice, once after some lessons and another after all lessons completed. The result was shown as the table 2.

Table 2: The Effectiveness of Multimedia Materials for Learning the Value of Thai Literature

	M1 – M3 Level			M4 – M6 Level			Average (\bar{x})	Benchmark
	School 1	School 2	School 3	School 1	School 2	School 3		
Early lessons	84.90	90.79	86.02	89.47	88.98	86.09	87.71	80
Lessons completed	88.42	89.10	90.00	86.04	89.80	90.83	89.03	80

The average score of the first evaluation, on process learning, was 87.71% while the second evaluation, learning completed, was 89.03%. This meant that efficiency of the created multimedia materials was 87.71/89.03, compared to the benchmark of 80/80. So, the first hypothesis was proved true, the efficiency of the created multimedia materials was higher than the benchmark.

2.2 Learning Achievement by the Multimedia Materials

To show the learning achievement resulted from the created multimedia materials, students took the pre-test before the application and the post-test after the learning completed.

Table 3: Comparison of Learners' Learning Achievement of Thai Literature Value Before and After Learning with Multimedia Materials Learning Thai Literature Value

	M1 – M3 Level			M4 – M6 Level			Average (\bar{x})
	School 1	School 2	School 3	School 1	School 2	School 3	
Pre-test	11.58	8.35	17.09	16.67	12.67	17.22	13.93
Post-test	26.53	28.71	28.71	26.84	26.94	27.25	27.50

The result, as the table number 3 shown, proved the second hypothesis true that the post-test score was significantly higher than the pre-test score, at 0.05 statistic level.

Conclusion

The created multimedia materials for efficient learning Thai literature passed the evaluation criteria. After application of the materials, the post-test scores showed significantly different, 0.05 points, from the pre-test scores. Both factors reflected efficacy of the created multimedia materials, which were well designed by related scholars, including lecturers of classical Thai literature; educational technology experts; and research consultants. Also, since the planning stage the researchers had studied and surveyed problems and requirements of learners, and then held a discussion with experienced teachers of Thai literature in order to gain important teaching techniques according to the curriculum. From the meeting with educational technology experts and scholars of Thai literature, the created multimedia materials were designed to emphasize on three important values, aesthetic; social; and moral. These made the created multimedia materials unique and efficient.

Discussion

In conclusion, the created multimedia materials were made by various techniques, including drawing of characters; video making; game designing; making of cartoons, animation, motion pictures, graphic pictures; applying clips from movies, plays, television dramas; sound recording of talks, conversations, poems; and so on. The research results were agreeable with Sucharit P. and Saijai I. (1995: 230 – 238) who stated the idea that since Thai literature is a kind of cultural heritage, so learning of Thai literature should be emphasized on inspiring appreciation on its values, and appropriate media should be applied for the efficient learning.

Also, the research results corresponded with some relevant researches on application of technological media for learning Thai literature. For example, *Learning Achievement of the Six Hats Teaching Method Compared to the Normal Teaching Method with Computer Assisted Instruction (CAI) on Guan Yu Allying Cao Cao, an Episode in Romance of Three Kingdoms, of High School Students (M6)* by Songrith C. (2010); *Lessons on Ma-nus-bhum, a Part in Tribhum-pra-ruang by Computer Assisted Instruction (CAI) for High School Students (M6)* by Pimnicha P. (2010); and *Multimedia Lessons on Ramayana by Computer Assisted Instruction (CAI) for High School Students (M3)* by Piyoros M. (2007). Results of the three mentioned researches stated that after learning Thai literature through technological media, learners gained positive attitude toward Thai literature and high learning achievement since the media attracted good attention from learners. In conclusion, along with other relevant researches, the results of this research reinforced the notion that technological media well assisted in conveying meanings, contents, and values of Thai literature. This suggested that by the support of technological media, the values of Thai literature would be granted to endless generations.

Suggestions

1. A research on Enhancing Knowledge of Producing Multimedia Materials for Learning Thai Literature for Primary School and High School Teachers should be conducted.
2. A research on Enhancing Knowledge of Producing Multimedia Materials for Learning Thai Literature for Teachers Teaching Thai Language to Foreigners should be conducted.

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