DEVELOPMENT OF MULTIMEDIA FOR LEARNING – MELODIC INSTRUMENTS IN ENSEMBLE OF THAI PIPHAT FOR GRADE 8 STUDENTS, DEMONSTRATION SCHOOL OF SUAN SUNANDHA RAJABHAT UNIVERSITY

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ABSTRACT

This paper aims 1) to develop of Multimedia learning the main melody in the Thai Pi Phaat ensemble 2) to compare achievement of pre- and post-learning multimedia learning and 3) to examine satisfaction towards the lesson. A sample group was 34 grad-8 (room 4) students (grade-8/4) in second semester, academic year of 2021. 1) a multimedia lesson 2) questionnaire and 3) satisfaction questionnaire was utilized as research tools. Analysis was conducted by utilizing mean, standard deviation (S.D) and t-test.

It revealed that 1) the multimedia for leaning - melodic instruments in an ensemble of string Pi phaat was in in good quality. 2) post-learning achievement was better than pre-learning one with statistical significance at .05 3) satisfaction towards the lesson in the students was high.

Keyword(s)−Multimedia and Thai music instrument

INTRODUCTION

Nowadays, multimedia technology for learning has a direct role in life. Because students in this generation grew up with information technology. A Computer Multimedia is a form which learners are able to study everywhere by utilizing portable computer technology having wireless communication as a learning tool. (Sarawut and Sudarat, 2020)

Make new generations of students see the use of technology as a normal thing in their daily lives (Aljaloud et al., 2015; Wang & Lieberoth, 2016). Help learners review their knowledge. analyze the lesson bug fix as well as being able to evaluate the results of self-learning still lacking or not yet widespread Most of them are designed in the form of content for reading and doing exercises only, not flexible for learners, thus making them not as interesting as they should be (Vachira In-Udom, 2003) learning management by using multimedia media It is a learning management by multimedia teachers. as teaching aids in teaching and learning in various subjects. Multimedia learning media is therefore a suitable teaching aid for a learner-centered teaching environment or Learners are important (Nattasak Chanpetch et al., 2015).

Teaching and learning of the basic education core curriculum Aim for learners to develop 5 important competencies: the ability to communicate thinking ability to solve problems the ability to use life skills and the ability to use technology (Ministry of Education, 2008: 6) by dividing the learning subject group into 8 groups, art subject group It is one of the subject groups that emphasizes the knowledge of learners. and skills in originality, imagination,

creativity, art, aesthetics, and appreciation of art which is divided into 3 contents, namely visual arts content, music content, and dancing arts content. for music It is a subject that focuses on learners to understand different types of musical instruments. used in mixing and gave rise to different types of bands understand the relationship between music history and culture see the value of music a cultural heritage local landscape Thai and international wisdom at the grade 8 students must be able to Explain the role, relationship, and influence of music on Thai society. Identify the diversity of musical elements in different cultures.

The researcher, as a teacher who teaches Thai music at the grade 8 students, a demonstration school. Suan Sunandha Rajabhat University From past teaching, it was found that students received incomplete knowledge, lacked knowledge, understanding and skill in classifying melody instruments, especially their functions and ensemble compositions. Musical instruments in the Thai Pi Phat ensemble, which have characteristics and are unable to develop musical listening to understand and appreciate music. However, the management of teaching and learning in the subject of music is still limited in terms of musical instruments. Because musical instruments require skill and experience to practice. to classify the differences of musical instruments It is therefore possible to manage Teach and teach to achieve the goals according to the curriculum. It is therefore essential that multimedia media be used in educational management. For the learners to understand the course content clearly, quickly and to facilitate teachers in explaining examples, sounds, illustrations, animations as a result, students can see the image as close to reality as possible, creating a system of interaction. Makes learning in the new era a great success (Yuen Phuwarawan, 2003: 47-48)

For these reasons, the researcher has developed multimedia for learning about the main melody instruments in the Thai pipa ensemble. for grade 8 students. The researcher summarizes the important content in the form of multimedia for learning. Description, still images, animations making it easier for students to learn It also affects better academic achievement.

OBJECTIVES

1. To develop multimedia for learning about the main melody in the Thai Pi Phaat ensemble for grade 8 students.

2. To compare learning achievements before and after learning with multimedia for learning about.

3. To study the satisfaction of students towards the multimedia media on the main melody in Thai pipa ensemble. For students grade 8.

LITERATURE REVIEWS

1. Robert Gagn é (1985, referring to Sakda Sucharit, 2015) learned the theory based on the principle of content presentation. The nine teaching principles are: 1) stimulate interest before introducing the course content. 2) Inform students of learning objectives before class. 3) Review old knowledge, review old knowledge before introducing new knowledge to students 4) Present new content The images related to the content shall be presented, and a short, simple but meaningful explanation and the use of illustrations shall be attached. 5) A guide to learning.

If there is a good content presentation system, and it is related to the learner's original experience or knowledge. 6) Stimulate the curriculum response. The effectiveness of learning is directly related to the level and stage of data processing. Participation in content related activities and answering questions will produce good memory. 7) Provide feedback through clear goals. Tell the students where they were and how far away, they were from the goal, and provide the above feedback information. 8) The new knowledge test is an opportunity for students to test their knowledge. 9) Summarize and apply. Summarize the concept of the topic, including suggestions, so that students could have the opportunity to review the knowledge.

2. Multimedia refers to the use of computers to display various media in the form of mixed media, with the focus on making learners see it. Select and listen to messages on your computer screen. Messages include letters, images, animation, and sound formats. And video, so that users can directly interact with the media and apply multimedia to education. Multimedia learning is a computer program designed for education. Use the computer as the basis of educational multimedia production and show the produced multimedia to students. Students only need to follow the ready-made procedures to learn or use to obtain complete content. Through the provision of interactive multimedia information (Academic Affairs Department, 2001:24) The process of multimedia design and development is to design the learning process according to the teaching objectives. Monchai Tienthong (2005: 131) indicates the ADDIE format This is a format widely used in computer curriculum development, covering the essence of computer curriculum design. All this is to create a multimedia computer course with the theme of "Color Sound Universal Instrument String". 1. By defining the goal of creating multimedia computer courses, the analysis work is divided into the steps of ADDIE format, that is, steps. 1 Analysis stage 2 Design stage 3 Development stage 4 Experiment stage Implementation and Evaluation Phase 5

Siriporn Phaisit (2020: abstract) has conducted a study – The making of audiobook and its results to improve learning achievement – types of Thai musical instruments for primary education student, 4th year (grade 4), Bang Kadi District Municipal School; it was found that 1) the created audiobook of types of Thai musical instruments had it efficiency of 82.92/83.44 in alignment with the required criteria – 80/80 2) post-test after utilizing the audiobook of types of Thai musical instruments yielded better learning result than the pre-test with statistical significance at 0.5 level.

Jariyavadee Chongchimplee, Prayuk Sriwilai and Panida Laochanwut (2016: abstract) has conducted the study – Development of computer multimedia instruction on Thai classical music ensemble for Prathom Suksa 6 students.; it revealed that 1) the created computer multimedia lessons of Thai classical music ensemble for Prathom Suksa 6 had its efficiency of 83.95/81.58 2) an efficiency index of each lesson on the computer multimedia was 0.6500, signifying that the learners made progress in learning or 65% 3) the students who learned with the computer multimedia lessons had higher learning achievement than the students learning with normal instruction with statistical significance at 0.1 4) the students who learned with the computer multimedia lessons had a better creative skill than the students learning with normal instruction with statistical significance at 0.1 and 5) the students who learned with the computer multimedia lessons had the satisfaction level towards the Thai music subject at the high level.

Pathompong Thamlangka and Chaiyapreuk Mekara (2015: abstract) has conducted the study – Creating multi-media computer assisted lessons for grade 6 music students: a case study, Thairutwithaya School 31 (Tungnaophutimaseuksakorn) Amphur Song of Phrae province, it revealed that 1) the students achieved 87.19% post-test score as per the assumption 2) the students achieved 81.41% average score of interclass review exercises as per the assumption and 3) the average satisfaction level of the student towards the computer-assisted multimedia lessons (music for grade 6 students) was 4.15, signifying the high satisfaction level as per the assumption.

Sujitrat Tiptarat (2015: abstract) has conducted the study – The development of multimedia instruction by cartoon in music subject for Prathomsuksa 1 students; it was found that 1) the efficiency in processes and outcomes of the developed multimedia instruction was 89.00/87.00 2) the average post-test learning achievement by utilizing the developed musical cartoon multimedia instruction for Prathomsukasa 1 (grade 1 students) was higher than the pre-test learning achievement with statistical significance at .05 level and 3) the analysis of students' satisfaction level towards the developed musical cartoon multimedia instruction for Prathomsukasa 1 (grade 1 students) yielded a high result ($\bar{x}$ = 2.94 and S.D = 1.45)

METHODS

1. Scope of research

1) Population and sample the population is 34 students in grade 8/4 of Suan Sunandha Rajabhat University Demonstration School, semester 2, academic year 2021.

2) The content used in the research was the main melody in the Thai Pi Phaat ensemble. according to the art learning subject group Basic Education Core Curriculum, 2008.

2. Materials and Methods

1) The development of multimedia for learning about the main melody in the Thai pipa ensemble. for student, grade 8.

2) Multimedia media quality assessment form for learning. For content professionals and information technology

3) A pre-learning and post-learning achievement test on the main melody in the Thai pipe band. created by the researcher in accordance with the Basic Education Core Curriculum, 2008, is a multiple-choice test, 20 questions.

4) a questionnaire on the student's satisfaction with multimedia media for the subject matter the main melody in the Thai Pi Phaat ensemble for student, grade 8 developed by using a 5-level estimating scale

3. Research Methodology

1) Research documents and research related to learning multimedia development and learning achievement measurement.

2) Design learning multimedia and determine the goal and expected results of learning multimedia. Theme: The main melody and content layout of Thailand Pi phaat band, first in the back row.

3) Use ADDIE model to develop learning multimedia to implement and create a learning achievement measurement model. The main melody of the Thai band.

4) Evaluate the quality of multimedia learning and create learning performance indicators. Non sample students were examined and experimented by experts.

5) Use multimedia to learn and use samples to measure learning results.

6) Evaluate the multimedia learning performance by comparing the learning performance before and after school. And assess students' satisfaction with learning multimedia.

RESULTS

The multimedia for learning – melodic instruments in ensemble of Thai Pi Phaat for lower secondary education grade 8 student Demonstration School of Suan Sunandha Rajabhat University was developed with the following results:

1.The development of multimedia for learning – melodic instruments in ensemble of Thai Pi Phaat for, grade 8 student

Table 1: quality assessment results of the multimedia for learning

Description(s)	$\bar{x}$	S.D.	Quality level
Content	4.28	0.61	Good
Usage of language	4.22	0.72	Good
Quality and sound	4.27	0.65	Good
Total	4.26	0.66	Good

Based on table 1, the overall quality assessment results of the developed multimedia for learning are in good level ($\bar{x}$ = 4.26, S.D. = 0.66), in each aspect, the results are as follow: as for the opinions by experts, they are in good level ($\bar{x}$ = 4.28, S.D. = 0.61), quality and sound is in good level ($\bar{x}$ = 4.27, S.D. = 0.65) and the usage language is in good level ($\bar{x}$ = 4.22, S.D. = 0.72).

Section 2: the comparison of pre- and post-test (instruction with the multimedia for learning) achievement – melodic instruments in ensemble of The Pi Phaat for grade 8 student.

Table 2: the analysis and comparison results of pre-test and post-test

Testing	n	$\bar{x}$	S.D.	t-test	.Sig
Pre-test	34	8.94	11.23	16.52	0.5
Post-test	34	11.23	1.37		

Note: 0.5 of statistical significance

Based on table 2, it shows that pre-testing average score = 8.94 (S.D. =11.23) while post-testing average score = 11.23 (S.D. = 1.37), T-test = 16.62 and **Sing** = 0.5, statistically significant difference = 0.5, average post-test score is higher than pre-test.

Section 3: the analysis of student's satisfaction towards the developed multimedia for learning – melodic instruments in ensemble of Thai Pi Phaat for grade 8 student.

Table 3: the satisfaction towards the developed multimedia for learning

Description(s)	$\bar{x}$	S.D.	Satisfaction level
1. In line with the objectives	4.47	0.56	High
2. Correct, clear and complete	4.71	0.46	Highest
3. Suitable lesson sequencing	4.29	0.58	High
4. Suitable with the time period of instruction	4.59	0.50	Highest
5. Better understanding of content	4.41	0.56	High
6. Fun, enjoyable and enthusiastic for learning	4.21	0.64	High
7. Suitable for the level of learners	4.47	0.56	High
8. Suitable and easy-to-understand language	4.56	0.50	Highest
9. Beautiful image and suitable to the content	4.47	0.51	High
10. Good type, size and color of the font	4.35	0.49	High
Total average	**4.45**	**0.54**	**High**

Based on table 3, it is found that, the overall satisfaction level towards the multimedia for learning is high ($\bar{x} = 4.45$), in each aspect, the first 3 averages are "Correct, clear and complete" ($\bar{x} = 4.71$), "Suitable with the time period of instruction" ($\bar{x} = 4.59$) and "Suitable and easy-to-understand language" ($\bar{x} = 4.56$).

DISCUSSION

On the development and development of multimedia media for learning on the main melody instruments in the Thai Pi Phaat ensemble. For student, grade 8 the results can discuss as follows.

1. The development of multimedia for learning about the main melody instruments in the Thai Pi Phaat ensemble for grade 8 student, the researcher conducted a study. Documents and research related to the development of multimedia media and the construction of learning achievement tests. Used to design and develop multimedia lessons for learning. Outline the content Prioritizing content Using the ADDIE Model principle, the multimedia computer lessons obtained. The main components were: 1) the first page of the lesson, 2) table of contents, 3) method of using the lesson, 4) learning objectives, 5) meaning and importance of Thai musical instruments, 6) types of instruments. Performing the main melodies in the Thai Pi Phaat ensemble 7) Types of Pi Phaat ensembles 8) Musical instruments used in the Pi Phaat ensemble 9) Quiz 10) Score processing 11) Answers to the quiz By having 3 experts evaluate the quality of multimedia computer lessons, it was found that the quality The overall level is very good. This is consistent with the research of Tarida Sakulrat. (2014), which stated that the development of CAI with correct, clear content, sound effects The image clearly displayed. and convey meaning directly suitable font size The contents of the CAI lessons is presented in order from easy to difficult. Fun and interesting activities will make the computer lessons developed an excellent quality.

2. Learning achievement of students who learn with multimedia for learning. developed after the study was significantly higher than before the study at the level of. 05 Because the researcher the test is conducted by asking students to do a test before and after school to

compare their learning achievements. shows that Students have knowledge and understanding of the content they study. Gaining direct experience in learning is have seen the characteristics practice method and hear the sound produced by the real instrument, allowing the learners to receive complete knowledge You can retrieve the information back and look at it again when you want. In addition, multimedia learning media can also reduce the problem of individual differences, that is, students will feel satisfied with their studies. and no pressure while studying when the learners are unable to catch up with others as a result, learners have higher learning efficiency. This is in line with Tisana Khemamanee (2009) who said that anything that has been practiced or done many times. inevitably makes the trainee fluent capable of doing well.

3. The satisfaction of the students towards the development of multimedia for learning about the main melody in the Thai Pi Phaat ensemble. for students in grade 8 from the study found that Students are satisfied at a high level. Students can learn lessons by themselves. Multimedia for learning developed with a continuous sequence of content. Easy to read, easy to understand, size, color, beautiful font style, easy to read, images used to accompany the lesson. clear, suitable for the lesson There is a test after class that can know the result immediately after taking the test. Makes students not bored with learning and able to use multimedia media for learning to come back and review their knowledge as needed. As well as being able to apply the knowledge gained to learning other types of Thai musical instruments. Corresponding to the research of Jariyawadee Chongchimplee, Prayap Sriwilai, Panida Laochanwut (2016), it was found that students were satisfied at a high level in all aspects.

RECOMMENDATIONS

The results of this research study. The recommendations are as follows:

1. Multimedia lessons should be developed for learning using other subjects to achieve learning and result in higher learning achievement for learners.

2. There should be a comparison of learning achievement between Use multimedia for learning with other teaching materials.

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