

KHLONGYONG COMMUNITY KNOWLEDGE AND DEVELOPMENT OF DIGITAL MEDIA LEARNING

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Abstract-Information and communications technology has become an important tool to enhance learning. It is also a way to distribute educational opportunities to the community, adding an additional channel to study so students can study at any place and any time. However, the rapid growth of information technology results in the adoption of other country cultures and lifestyle changes to the point of forgetting the conventional wisdom of the past. The researcher recognizes the importance of modern information technology to achieve the efficiency and maintain the local culture and way of life by presenting Khlongyong community knowledge with digital media that can be accessed anytime anywhere with QR code technology. The results of testing efficiency showed as follows. The user satisfaction had the mean score at 4.68. Technic and display had the mean score at 4.39. Moreover, presenting Khlongyong community knowledge with digital media that can be accessed with QR code technology does not only increases the interest to learn and can be accessed anytime anywhere with the Smartphones but can also distribute folk wisdom and providing local technology for the locals who are interested to be informed and be proud.

Keywords- Knowledge, Digital Media Learning, Quick Response Code

I. INTRODUCTION

At the present people all over the world is going to focus on information and communications technology by using them as a tool for developed economic, social and educational of their countries. The focus on reform and development of education lead to the development of the country. Information and communications technology is an important tool for increasing the efficiency of education management. It is also the way to spread the educational opportunities to the community.

The growth of technology and the culture of other countries makes us forget the local wisdom. However the local wisdom is still passed down to the countryside. Thus, the researcher has recognized the importance of information and communications technology to achieve the performance and still maintaining the culture and lifestyle of the local people. The researcher has chosen QR code technology to use as digital media learning

II. LITERATURE REVIEW

This research has studied the theory, literature, and ideas related research as below.

A. Digital Media Learning Theory

Digital Media Learning means:

Learning object is Digital Media materials which designed to help the students achieve the learning as their expected. Each subject will present key concepts by divided into several subsections. Instructor can use the Learning Object to combine with teaching in various ways and can be reused. The development of the media can enhance learning efficiency by used instructional design to create learning experiences which focus on learners as a key and link to the world outside the classroom.

The Important of Digital Media Learning

Digital Media Learning helps learners understand and remember easily. The learners has more interested and participate even in complicate and difficult subject. It helps to increase experience and more efficiency of teaching by saving time and power. Digital Media Learning helps us to increase experience, learning efficiently, save time and power.

B. Quick Response code Theory

Quick Response code means:

QR Code stand for Quick Respond Code which is a two-dimensional barcode. Invented in 1994 by Denso Wave Inc. in Japan. The aim is to develop the ability to store data in various formats which increase capacity to store data and can respond quickly to decrypt the data.

It is an Open Source Software program that can be developed for various applications.

QR code reader can scan the code, which connect to QR Web Page instantly and automatically.

C. Literature Review

Habib BinAhmad and his party have studied tracking system of production process by using QR Codes. The results revealed that QR Codes is the system that made more comfortable and can monitor, edit, and update the defect of products immediately which makes the production system can be produced quickly and more efficiently. In additional, QR Codes also can report the amount of production by daily, monthly and yearly and keep statistics for product development and production tracking system efficiently.

Naruthep Suwantada mentioned that QR Codes application to keep record the amount of the graduates who participate graduation ceremony by import the data via the online data management system which can help to record number of graduation participants

correctly and verifiable.

Charuwas Nuthong mentioned that she has used E-Learning on network for teaching and the quality overall was 4.66, which is very good. They are satisfied with E-learning.

III. METHODOLOGY

Khlong Yong Community Knowledge and Development Digital Media Learning, researcher has done the research as following details.

D. Target Group

Target Group is students who need to learn local wisdom at Khlong Yong Community, Bhudhamonton district Nakhonpathom Province, Thailand.

E. Research Instrument

- 1) Digital Media Learning
- 2) Satisfaction questionnaire
- 3) Performance Assessment of Digital Media Learning by professionals

F. Research Stage

Digital Media Learning development process as following:

- 1) Study and research information of Learning Resources Khlong Yong Community.
- 2) Collecting data for do Digital Media Learning
- 3) Creating Digital Media Learning as the following step:
 - (1) Manage database from the collecting data by sort
 - (2) Link database technology with Quick Response Code
 - (3) Testing and modify Digital Media Learning
 - (4) Set up Digital Media Learning in Khlong Yong Community
 - (5) Publicize and provide the information how to use

Satisfaction Questionnaire for Digital Media Learning learners.

The questionnaire scale up to 5 points (Rating Scale) by the opinion of learners to Media Digital Learning. Create 1 issue as following step:

- 1) Learn how to create a questionnaire based on a method of Best (Best 1986: 181-182).
- 2) Create the Questionnaire for Digital Media Learning learners (Target Group) by (Rating Scale) 5 points based on Likert Scale and 5 question sides.

Performance assessment of Digital Media Learning by professionals.

Give the feedback to 5 experts 1) Expert content 2) Professional Media Learning. 3) Technical expert to assess the effectiveness of the Digital Media Learning as following:

- 1) Learn how to create a questionnaire based on a method of Best (Best 1986: 181-182).
- 2) Create the Questionnaire for Digital Media Learning learners by professionals by

(Rating Scale) 5 points based on Likert Scale and 5 question sides.

G. How to collect the data

Collecting data from Khlong Yong Community to develop. The data were collected as text and images by sorts of knowledge.

H. Data analysis

- 1) Inquiry of satisfaction of learners (Target Group) which learn by using percentages of Standard Deviation.
- 2) Assess the effectiveness of learning by professionals which using percentages of Standard Deviation.

I. The statistics used to analyze data

Average

$$\bar{X} = \frac{\sum X}{N}$$

\bar{X} = Average rating

$\sum X$ = The sum of the scores

N = Amount
Standard Deviation

$$S.D. = \frac{\sum (X - \bar{X})}{N}$$

S.D. = Standard Deviation

$\sum (X - \bar{X})$ = The sum of scores minus the Average rating
N = Amount

IV. RESULTS

The researcher has performed the research as follow the objectives by the analysis as following below.

J. Satisfaction Results of Digital Media Learning Learners at Khlong Yong Community:

The Target Group has learned by using Digital Media Learning with the local wisdom group. The researcher has assessed the satisfaction of learners. The assessment results are shown in Table 1

Table 1 Results of the satisfaction of learners.

	Data		
	\bar{x}	S.D.	RESULTS
1.Content and presentation	4.67	0.93	Most satisfying
2.Visual,Audio and Techniques	4.58	0.91	Most satisfying
3.To create an understanding of the Contents	4.68	0.93	Most satisfying
4.Can be used comfort and efficiency	4.72	0.94	Most satisfying
5.Interest	4.75	0.95	Most satisfying
Average total	4.68	0.93	Most satisfying

K. Results of assess the effectiveness of Digital Media Learning by professionals.

The research has presented Khlong Yong Community Knowledge and Development Digital Media Learning to 5 professionals to review the quality which the

researcher created. The evaluation results are shown in Table 2.

Table 2. Results of assess the effectiveness of Digital Media Learning by professionals.

	Data		RESULTS
	\bar{x}	S.D.	
1. Content and presentation	4.28	0.85	Very appropriate
2. Visual, Audio and Techniques	4.30	0.86	Very appropriate
3. Fonts and colors	4.4	0.88	Very appropriate
4. Stability	4.50	0.9	Very appropriate
5 Technical and output	4.51	0.9	Most appropriate
Average total	4.39	0.87	Very appropriate

V. DISCUSSION AND CONCLUSION

The researcher have researched Khlong Yong Community Knowledge and Development Digital Media Learning by applying QR Code technology. Digital Media Learning contains the history of Khlong Yong Community and way of life as the philosophy of sufficiency economy by using knowledge of local wisdom and the sufficiency farming. The content consists of text, images, sound and using QR code technology to connect information which helps the learner more comfortable and easy to review anywhere, anytime.

Satisfaction Results of Digital Media Learning Learners found that overall of the learner are most satisfying. The average value of 4.68 and a standard deviation of 0.93. There is an additional comments from the learner that Digital Media Learning makes the boring subjects such as agricultural to more interesting and also can review at any time by access QR code technology that is simple and convenient.

Results of assess the effectiveness of Digital Media Learning by professionals found that their overall comments are very reasonable level. The average value of 4.39 and a standard deviation of 0.87, Technical and Output the most appropriate with an average of 4.51 and the standard deviation is 0.9, stabilized with an average of 4.50 and the standard deviation is 0.9, font and color with an average of 4.4 and the standard deviation is 0.88, audio, visual and language the average value of 4.30 and a standard

deviation of 0.86, content and presentation The average value of 4.28 and a standard deviation of 0.85, which was very reasonable.

Conclude that the research Khlong Yong Community Knowledge and Development Digital Media Learning by applying QR Code technology has quality and can be used for self-learning effectively.

SUGGESTIONS

Should study and develop Digital Media Learning by using the advanced technologies and considering way to learn and access easily to the main content of the learners and combines modern technology to increase the interest in contents that is difficult to understand.

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