Training Curriculum Development on Information Technology to Enhance Local Community Products in Ratchaburi: a Community-Based Participatory Study

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Abstract - **In this study, the purposes of the study were to: 1) develop training curriculum on information technology enhancing local community products in Ratchaburi province, 2) to investigate an effectiveness of a training curriculum development on information technology enhancing local community products in Ratchaburi province, and 3) to investigate a user's satisfaction toward a Training curriculum development on information technology enhancing local community products in Ratchaburi province. Samples of the study included a group of local product manufacturers and entrepreneurs in Ratchaburi province. The research instruments consisted of: 1) in-depth interview, 2) the developed IT training curriculum, 3) an evaluation form of the curriculum, 4) a questionnaire to survey trainees' satisfaction, and 5) a follow-up survey form to inspect the use of the curriculum. The statistics adopted in the study were frequency, percentage and standard deviation.**

According to the results, they were found that the effectiveness of the developed IT training curriculum, evaluated by experts in the field, was at a very high level (mean = 4.78). The level of the overall trainees' satisfaction toward the designed curriculum was at a high level (mean = 4.25). The result of the follow- up survey of the use was at a high level (mean = 4.28), and the level of use was revealed at a high level as well (mean = 4.27), respectively.

Keywords - **Training Curriculum, Information Technology, Promotion, Community Product, Ratchaburi Province**

I. INTRODUCTION

The origin of community products in Ratchaburi grew from accumulative wisdom of the community members, all of which portraying the traits of their prolonged cultural heritage, unique way of life, as well as the community identities, handed over from generations to generations. Together with a mix of an ethnic variety (over 8 ethnic groups) dwelling in Ratchaburi, the community

product development becomes ultimately distinctive and diverse. Various kinds of products have been potentially created in terms of food, beverage, herbs, household decors, clothing, etc. Until now, there have been 369 registered community manufacturers and 959 community products (Office of Ratchaburi Community Development, 2016). Since community products entail the communities' prosperity and healthy economic condition for better living, the management of resources became very substantial. In doing so, the uniqueness and cultural or demographical identities of the communities must be integrated in the community product development. With an ultimate aim to escalate the community products to meet a high quality standard and a global competitive position, such the matter of identities and products integration draw very much attention from public and private sectors. At the same time, the current world continues moving forward to a more advanced digital world, resulting in huge impacts on national economic and social system as a whole. Individuals; therefore, are required to adjust themselves in order to contend for living in the modern world. It implies the necessity of changes in community product creation to be more worldwide promising, interesting, and competitive.

To begin the preparation for the change, the community entrepreneurs and manufacturers should be cultivated with the readiness on IT knowledge and skills. Such the knowledge and skills will equip them with the ability to develop quality products for their communities by a more effective and advanced manner. When the world becomes smaller because of the online technology growth, economy at all scales has been effortlessly interconnected by just a fingertip. There are no boundary and limitation of distance between places to places. Economic systems turn to support newer forms of communication and to be more flexible. However, as the technology seems to be too fast to follow, some entrepreneurs and manufactures in old and middle-aged generations still lack the IT knowledge, especially those who live in the

remote areas near to the borders. This turns to be a critical impediment for them in developing their community products, affecting the performance of public relation, marketing, packaging design, distribution channels, and so on. It can also indicate that IT knowledge is the key to success of community enterprises, in stepping forward to meet the world of challenges and competitiveness. Thus, development of human resources on IT systems is considered the first robust step to begin, in following the world speedy changes and in situating in a position that fits to the present world.

In conclusion, from the aforementioned, the researcher has foreseen the importance of the development of a training curriculum on Information Technology (IT) to promote community products of Ratchaburi by using community-based participatory research. Formulated in accordance with the community needs, the developed curriculum regards as a jigsaw to construct a solid basis for the future domestic economy.

II. RESEARCH OBJECTIVES

The purposes of the study were as follows:

1) To develop a training curriculum on Information Technology (IT) to promote community products of Ratchaburi.

2) To investigate the effectiveness of the developed training curriculum.

3) To survey the users' satisfaction towards the developed training curriculum.

III. MATERIALS AND METHOD

Research methodology can be described as in the following details:

A. Population and Samples of the Study
The population and samples of the study consisted of 79 community entrepreneurs or manufacturers in Ratchaburi. The sample figure was determined by the Yamane formula (Yamane, 1973).

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B. Research Instruments

Data were collected through the following instruments:

1) Interview with community product entrepreneurs.

2) The developed training curriculum on Information Technology to promote community product.

3) Evaluation form of the developed training curriculum.

4) Satisfaction Survey on the application of the developed training curriculum.

5) Follow-up evaluation form on the effectiveness in long term and usability of the developed training curriculum.

C. Data Analysis and Statistics Used in the Study

Data were analyzed by using frequency, percentage, mean ($\bar{x}$), and standard deviation (S.D.), performed by a statistical software. Demographical areas for data collection: communities in Ratchaburi, comprising 10 districts, namely Mueang, Bang Phae, Ban Pong, Photharam, Damnoen Saduak, Chombueng, Suan Phueng, Ban Kha, Wat Phleng, and Pak Tho.

D. Research Procedure and Data Collection

The present study was conducted in the following steps.

1) Related literature was reviewed from a variety of sources including documentary collection, textbooks, journals, research papers, etc. on theoretical concepts encompassing development of an IT training curriculum, in order to promote community products.

2) A participatory seminar was held in order to gather the information of the community needs on the model of the IT training curriculum to promote their community products. The participants were community members' representatives.

3) The curriculum was designed based on the analyzed data and the results of actual needs information of the community.

4) A workshop or training course was carried out according the developed training curriculum design to the target communities in order to promote the community products.

5) Evaluation of the users' satisfaction towards the application of the training course was conducted.

6) Evaluation of the effectiveness of the course towards the usability of the curriculum.

7) Report writing was performed in order to publish the article for knowledge dissemination to public.

IV. RESULTS

Results could be summarized as follows:

1) Regarding the result of the development of the IT training curriculum to promote community products in Ratchaburi, from the front-end analysis of the entrepreneurs or manufacturers participated in the study, it was discovered that there were two main topics for the curriculum development which included: (1) product design for value adding and (2) development of an online social media to increase the sales volumes. Additionally, the result of the curriculum evaluation, conducted by experts in the related fields, was at a very high level overall (mean = 4.78) as shown in table I.

TABLE I
SUMMARY OF THE EVALUATION ON THE EFFECTIVENESS OF THE DEVELOPED TRAINING CURRICULUM

Evaluation List	Mean	S.D.	Results
1. Overall Quality of the Curriculum	4.83	0.35	Very high
2. Attendants of the Curriculum	4.48	0.68	High
3. Lecturers and Speakers of the Curriculum	5.00	0.00	Very high
4. Venue and Learning Resources and Facilities	4.77	0.45	Very high
5. Training Assessment and Evaluation	4.79	0.42	Very high
6. Training Organization	4.81	0.42	Very high
Overall Evaluation	**4.78**	**0.38**	**Very high**

2) The result on the satisfaction of the users towards the application of the developed curriculum to promote the community products, surveyed with the target community participants, it was found that their level of satisfaction was at a high level of 4.25 mean score, as presented in table II.

TABLE II
SUMMARY OF THE USERS' SATISFACTION
TOWARD THE TRAINING CURRICULUM

Evaluation List	Mean	S.D.	Results
1. Lecturers and Speakers of the Training	4.41	0.56	high
2. Provision of Facilities	4.35	0.61	high
3. Staff Service Delivery	4.44	0.61	high
4. Knowledge Gaining and Content Understandability	3.92	0.68	high
5. Transferred Knowledge Application	4.14	0.57	high
Overall Evaluation	**4.25**	**0.61**	**high**

3) The result on the effectiveness of the developed training curriculum in long term and the follow-up evaluation to investigate its usability, was discovered that the samples had high understanding in the learning contents (mean = 4.28), as well as a high level of the training curriculum usability (mean = 4.27), as indicated in the table III and table IV.

TABLE III
SUMMARY OF THE LEVELS OF KNOWLEDGE
AND UNDERSTANDING

Evaluation List	Mean	S.D.	Results
1. development of LINE@ to promote the products	4.14	0.59	high
2. application of Facebook Fanpage to promote the sales volumes	4.34	0.62	high
3. development of online shops to promote marketing by using LnwShop	4.32	0.65	high
4. development packaging designs	4.28	0.60	high
5. creations of logos by web applications	4.34	0.68	high
Overall Evaluation	**4.28**	**0.63**	**high**

TABLE IV
SUMMARY OF THE LEVELS OF LEVEL
OF KNOWLEDGE FOR APPLICATION

Evaluation List	Mean	S.D.	Results
1. development of LINE@ to promote the products	4.24	0.66	high
2. application of Facebook Fanpage to promote the sales volumes	4.10	0.61	high
3. development of online shops to promote marketing by using LnwShop	4.25	0.67	high
4. development packaging designs	4.28	0.70	high
5. creations of logos by web applications	4.49	0.60	high
Overall Evaluation	**4.27**	**0.65**	**high**

V. DISCUSSION AND CONCLUSION

According to the results, the discussion were listed out in the following details:

1) The result of the curriculum evaluation, conducted by experts, of the IT training curriculum to promote community products in Ratchaburi revealed that the quality of the curriculum was at a very high level overall, correlated with the result of a previous study by Kongtuem (2013), [4] on "the Development of Development of an Online Course for Promoting Teachers Competence under Office of Basic Education Commission". Her research displayed the result of a very high level of the quality and consistency of his developed course. In similar vein, Soonklong (2008) studied the development of a training course on professional practices enhancement to promote holistic learning achievement for teachers under Office of Basic Education Commission and his course was also evaluated with the result of a high level. Again to be ascertained with the result of a high quality of a developed training course, the empirical evidence was found in the study of Pideth (2016), [3] on Development of a Training Course, "Computer Foundation for Enhancement of Computer Competence of Undergraduate Students from Nakornsawan Rajabhat University".

2) The satisfaction of the users towards the application of the developed training curriculum was at a high level. A similar result appeared in the finding of several related previous studies,

namely, a research conducted by Kongtuem (2013), [4] whose topic was on "the Development of Development of an Online Course for Promoting Teachers Competence under Office of Basic Education Commission", a research conducted by Tadchang, Rotjananiti, and Panyasai (2015), [6] whose topic was on Development of a Training Course on Healthy Thai Bamboo Sticky Rice Dessert for Matthayomsuksa 1-3, a research conducted by Assavaphokin (2011), [7] whose topic was on Development of a Training Course on English Production for Communication for Academic Employee in Srinakharinwirot University, a research conducted by Tantulapong (2017), [8] on Development of a Training Course to Promote Creative Writing Ability, and Writing Skills for Teachers under Office of Basic Education Commission, a research conducted by Chakchum (2016), [2] on Development of a Training curriculum based on Blended Learning to Promote Teacher Competency of IT and Communication, and a research conducted by Pideth (2016) on Development of a Training Course, "Computer Foundation for Enhancement of Computer Competence of Undergraduate Students from Nakornsawan Rajabhat University". All of the abovementioned studies empirically drew out the identical conclusion on the high quality of the developed training courses and curriculums.

3) The result on the effectiveness of the training curriculum in long-term indicated that the community attendants had more knowledge and better understanding in IT training contents at a high level. The level of usability was found within the range of the standard criterion set earlier, associated with the findings from the previous research carried out by Soonklang (2008), [5] on the topic of Development of a Training Course on Professional Practices Enhancement to Promote Holistic Learning Achievement for Teachers under Office of Basic Education Commission, and also similar to the finding of the research conducted by Chirawattanapol and his team (2017), [1] on the topic of Development of a Training Course on Professional Knowledge Management for Industrial Technician to Promote Analitical

Thinking through WebQuest. He discovered that effectiveness level of his course was also within the range of the standard criterion set. However, slight adjustment had been made during the development of the training curriculum in the present study, in attempting to match all the components and process with the context of the study.

VI. ACKNOWLEDGEMENTS

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(Arranged in the order of citation in the same fashion as the case of Footnotes.)

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