

## DEVELOPMENT OF ONLINE COURSEWARE ON THAI FOOD GOOD HEALTH

Narong Sompong

Faculty of Education, Kasetsart University, Bangkok 10900. Thailand

fedunrs@ku.ac.th

Cherdpong Kheerajitt

Faculty of Agriculture, Kasetsart University, Nakornprathom

### ABSTRACT

The objectives of this research were to 1) develop the online courseware on Thai Food Good Health to support the Thai Kitchen to the world project; 2) evaluate the courseware by the learners toward the courseware integrated using in aboard. The research sample were sampling for chefs, Thai restaurant owners, and the students who were studying at the TAFE culinary school in Sydney. The research instruments were a questionnaire to find out the needs and readiness to attend the online learning, and a questionnaire for the learners. Courseware was designed and developed on website [www.thaifoodtolearn.com](http://www.thaifoodtolearn.com) by applying the 5 steps model. Firstly, the synthesis of the research results done by the researcher team. Secondly, organizing focus group of the experts in food and nutrition and public relation field discussion on the essential contents and courseware format which would be used to develop the lessons. Thirdly, the survey of needs and readiness of the respondents. Fourthly designing the media in the courseware. Fifth, testing the courseware at TAFE Northern Sydney College in Sydney, Australia. The participants registered and studied from online courseware on [thaifoodtolearn.com](http://thaifoodtolearn.com) website as well as the set of multimedia “Thai food good health distributed to the participants with the learner’s active participation in demonstration and practices. The research result found that the respondents were readiness to study online courseware. They needed to learn as 1-2 weeks short course in the morning and evening. The topics they needed to learn were Thai food ways, Thai food cooking techniques, Thai healthy food such as Thai herb, fruit and vegetable, the characteristics of Thai food, safety Thai food, and basics knowledge of Thai food respectively. After learning online courseware, the learners’ opinion mostly showed that the lessons were totally good level. In case of the contents and presentation of video, image, graphics, hyper media links in each pages, the usefulness and benefit of the lessons mostly showed in very good level.

### INTRODUCTION

Thai government launched the new policy called “Thai Kitchen to the World Project” in 2004 upon 2008 with the aim of increasing the number of Thai restaurants aboard and to make Thailand the largest food exporter in the world. In this regard, Kasetsart University, under the support of National Research Council of Thailand was given a research grant to study the “Development of Thai Food Products and Proactive Promotion of Thai Food to the World”. The researchers studied about the standards and characteristics of Thai food, the product status and taste of foreigners, production process for export and extending the reach of Thai food restaurants to the owners and consumers abroad (Varayanond, 2008). The research was also found the significant of Thai food promotion to the government sectors. The research project investigated the model of multimedia integration. This study concluded that the next step of technology transfer could be implemented under an online study for target audiences in any part of the world, so Thais and foreigners would be able to access this information anywhere and anytime. Moreover, an online study would be cost effective because there would be no need for researchers or learner to travel (Sompong, 2010). For these reasons, the researcher then continuingly study furthermore on the development and testing the Courseware through internet on Thai food to the target audiences aboard who were the Thai restaurant owners, Thai and foreigner chefs and the instructors and students who were involved Thai cuisine.

### THE STUDY

This study focused to the develop the online courseware on Thai Food Good Health to support the Thai Kitchen to the world project by using purposive sampling of Thais and foreigners who were the owners of Thai restaurant, chefs, instructors and students of culinary institute aboard. The sample of this study was purposive sampling at TAFE Northern Sidney Institute in Australia. The contents composed of 5 topics which were synthesized from the result of Thai food research under the project of Thai government on “Thai Kitchen to the World” Project. The lessons composed of 5 chapters: 1) Thai cuisine overview, 2) basic knowledge about Thai cuisine, 3) Thai food for health, 4) food safety and 5) the way of Thai cuisine.

### Objectives

The objectives of this research were to: 1) develop the online courseware on Thai Food Good Health to support the Thai Kitchen to the world project; 2) evaluate the courseware by the learners toward the courseware integrated using in aboard.

## Review of Related Literature

E-learning is the process of instruction that apply the new digital technology regarding technology of computer, and tele-communication. E-learning may require to learn through computer both online learning with network and offline learning by single computer or non-network linkages. Clark and Myer (2008) defined e-Learning as instruction delivered on a computer by way of CD-ROM, Internet, or intranet with the following features: includes content relevant to the learning objective, uses instructional methods such as examples and practice to help learning, uses media elements such as words and pictures to deliver the content and methods, may be instructor-led (synchronous e-learning) or designed for self-paced individual study (asynchronous e-learning) and build new knowledge and skills linked to individual learning goals or to improved organizational performance. E-learning is essentially the computer and network-enabled transfer of skills and knowledge. Its applications and processes include Web-based learning, computer-based learning, virtual classroom opportunities and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio.(Wikipedia, 2554)

In case of online courseware design, Sanders (2001) mentions that it must be envisioned in a learning context. The student will learn from the Web page, but it can be a central locus of learning such as it may be a side bar-a review session, extra help, or adjunct to the book or classroom presentation and virtual simulation interface in the first page. In the fundamental design considerations, Siegal (1997) emphasize that the third generation Web site is one that invites the viewer into the site with lure and metaphors. They are none linear and alluring. They should be attractive and interesting to get the viewer's attention. Siegal also notify that "no matter how important and content rich your message, if no one is going to look at it, they're not going to get the message".

From the literature review, it showed that online courseware become the effective way of learning but it should be in well design and development to match with the target audiences or learners.

## Methodology

**1. Sample of the Study** was the learners in online courseware. They are Thais and foreigners who voluntarily fill out the questionnaire on the readiness and need for online study on Thai food. The second group of sample was the Thai restaurant owners, Thai and foreigner chefs, instructors and students of culinary institute. TAFE Northern Sidney Institute in Sydney, Australia was selected to be a site for studying because of suitable of facilities and its voluntary to cooperate the research project.

## 2. Research Instruments

**2.1 Online courseware** was designed and developed for training on Thai food in 5 steps model as this follows: First. Study and synthesize the results in Thai food researches from 2005-2008 for 4 years study. The researcher team identified the research into 5 issues. There were technologies in Thai food products for exports, Thai food ready to eat and ready to cook, Thai healthy food, anti-oxidant and prevention cancer substantial in Thai food and strategies for Thai food promotion abroad.

Second. A survey on the readiness and needs of Thai and foreigner respondents who were involved in e-learning through internet was administered. There were 13 respondents voluntarily fill out the data in a questionnaire though the research project website [thaifoodtoworld.com](http://thaifoodtoworld.com).

Third. Twelve experts focus group in food and nutrition was organized and determine the manuscript of the contents to prepared for the Web-based instruction.

Forth. Design the courseware on Thai food with the course content through **Moodle** Learning Management System (LMS) open source software. The component of contents was mainly presented by Flash images, video clips, exercises, pretest at beginning of each chapter and achievement tests at the end.

Fifth, the lessons were tested and tryout with 20 learners who were undergraduate program students in home economics in Kasetsart University, Thailand. The contents and program errors were corrected and revised before using with the sample in Australia.

**2.2 Questionnaires** were developed into two sets for collecting data from the respondents. The first questionnaire aimed to explore the readiness and needs in e-Learning through internet of the target group. The second questionnaire explored the opinions of the learners about the quality of online courseware systems and media uses for learning. It focused on personal information, the development of instructional media on the Web

such as format, contents, presentations, video clips, web linkages, benefits and usefulness of courseware, and the appropriate issues in each chapter.

**3. Data collection and analysis** the courseware contents were uploaded to website [www.thaifoodtolearn.com](http://www.thaifoodtolearn.com) for testing with the samples at TAFE Northern Institute Campus in Sydney, Australia. The samples attended the training program namely “E-Learning: Innovative Channel of Thai Cuisine and Health Benefit” during November 2010. Thirty eight participants were given instruction on how to use the LMS program for registration, log-in, studying, doing pretest and posttest. The participants were requested to fill out a questionnaire at the final study. Data were analyzed by SPSS for windows. Statistical uses were mean, standard deviation, and percentage.

## FINDINGS

### 1. The readiness and needs in e-Learning through internet

The result showed that the respondents were readiness for online learning Thai cuisine by using computer at their home 84.6 % and their office 76.9 %. They almost uses e-mail 100% following by MSN 61.5%, Skype 53.8%, blog 23.1% and web board 15.4%. They expected the usefulness of e-Learning on Thai food mostly for their business, healthcare, occupation and food consumption respectively. They needed to learn by following contents in the highest level: Thai food ways, Thai food cooking tips, Thai food for health, Nutritional and functional information of Thai food. However, they also needed to learn the uniqueness of Thai food, history and culture of traditional Thai food and hygiene and sanitation in high level respectively. They preferred to learn a short course for 3-6 days.

### 2. The output of the experts’ focus group

The experts suggested that the content presentation should use multimedia for drawing attention and gave the highest effective learning. For instants, video clips showed demonstration and sound, the online management systems should be controlling and checking the learners. The online courseware should be the pilot projects which could be cooperated with the Thai Hotel and Thai Chef Association.

### 3. Online courseware and feedback from the respondents

The participants who registered to online courseware at TAFE Northern Sydney Institute gave the response about the format of online learning on website [www.thaifoodtolearn.com](http://www.thaifoodtolearn.com) in good and very good level. Their opinions were almost in good level in terms of its contents, however, there were in very good level only on the presentation items such as the color contrast of text and background, and the clarity of images. Format and method of presentation, leading into lessons, text format, graphics design and communication were mostly in good level. For video presentation in case of size, corresponded and clarity of narrative, and easy to control as well as the linking of lesson components were in good level.

The available supported program as chat room, web board and help is almost in good level. They accepted that e-Learning on Thai food could be used for learning resources and promoted in the international contexts in very good level. Nevertheless, they realized that gaining knowledge could be used after taking lessons in good level.

Finally, online courseware in five chapters were totally in good level for 5 items. There were the clarity of images, appropriateness of the text size, colors, and background, images clarity and narrating sound in video.

The learners gave the additional suggestion that the program would be easy to learn with the Thai learners aboard, they suggested that the lessons should be bi-lingual program; TAFE Northern Sydney Institute was interested to collaborate to testing the online lessons within an Asian food course in the future.

## CONCLUSIONS

Online courseware on Thai food good health was really the new innovative. The methods and techniques deal with the new technologies for online learning. This could be proved that it was workable and compatible for the strategies of “Thai Kitchen to the World Project” of Thailand. Because this learning systems was highly benefits to the learners under the international context. The learners can learn from anywhere, at anytime with the various types of online media. They can communicate with the Instructors and experts in Thailand via the available tools on the internet. In doing so, the learners can achieve their knowledge and apply to their business improvements with high performances in Thai food promotion aboard. **However, the factors to achievable learning may depend on many factors such as the readiness and needs of the target audiences accessibility** to learn by self-pace.

In terms of the design and development of online courseware, it requires the format and knowledge of pedagogy science to design the program matching with the various learners. The learning management program is one of the choices to select the efficiency platform in web designing. For this study, Moodle could be confirmed that it is one of the LMS open source program which is the very useful and convenience to manage online learning.

In conclusion, the learners who use online courseware accepted all the lessons as the good program and consensus opinion was showed that all components in the designed program was in good and very good level. However, according to the participants suggestion if the project had a chance to continue studying, the lessons should be produced the bi-lingual program in Thai and English version so this online courseware would be usefulness for the learners worldwide.

### References

- Sompong, Narong, (2010). Proactive Promotion strategies and Multimedia Development and Utilization in the “Thai Food to the World” Project in Leah Lyn D. Domingo and Editha C. Cedicol (Ed.) *Proceeding of the International Conference on Developing Tomorrow’s Leaders in Agriculture and Rural Development: Responding to the Challenges of Globalization* (pp 39-45), Los Banos, Laguna, Philippines: SEARCA.
- Clark, Ruth Colvin and Mayer, Richard E, (2008). *e-Learning and the science of instruction*. (2 ed.). CA: John Wiley & Sons Inc.
- Wikipedia, (2554). *e-Learning* Available at <http://en.wikipedia.org/wiki/E-Learning> (12 March 2554).
- Siegel, David, (1997). *Creating Killer Web Sites: The art of Third Generation Site Design*. 2<sup>nd</sup> ed. Indianapolis, IN:hayden Books.
- Varayanond,Warunee and others, (2008). *The Development of Safety Thai Food for Thai Kitchen to the World Project and Thai Food Proactive Promotions*, Research Report Submitted to National Research Council of Thailand, Institute of Food Research and Development, Kasetsart University.