

Developing a Blended Learning Model for Career Promotion in Thai Massage for Health for Adult Students

Phantipa Amornrit

Office of Educational Technology,
Sukhothai Thammathirat Open University, Nonthaburi, Thailand
phantipa.amo@stou.ac.th, phantipa.a@gmail.com

Chalabhorn Suwansumrit

Rajapruk University, Nonthaburi, Thailand
chalabhorn@gmail.com

ARTICLE INFO: Received: **09 Nov 2020**; Revised: **14 Dec 2020**;
Accepted: **23 Dec 2020**; Available Online: **28 Dec 2020**

Abstract

This research aims to 1) study the needs and readiness of the public to join the career promotion in Thai massage health care for adult students via a blended learning model and to 2) develop a blended learning model for career promotion in Thai massage for health for adult students. The research samples comprised two groups: 1) 108 public participants selected by a cluster sampling method and 2) 10 experts selected by the criteria of expertise, experience, and academic and research papers. Research results were as follows: 1) the need for career promotion in Thai massage for health was at the highest level and the readiness to join in career promotion in Thai massage for adult students through the blended learning model was at a high level. 2) the model consisted of seven components: the process of blended learning, learning management system, course of Thai massage for health, learning media, technology and communication tools, instructor's roles, learner's roles, measurement and evaluation, and the model consisted of three processes: (a) pre-online learning process (face-to-face) which consists of orientation, usage of learning management system, student grouping, pre-test, and skills assessment, and task setting for learning goals, (b) online learning process which consisted of a study of the objectives and practice tasks, online media learning, explore supplementary learning, knowledge sharing, reflective knowledge from practice tasks, and (c) post-online learning process (face-to-face) consisted of post-test and learning practice assessment, and summary and expanded knowledge.

Keywords: *Blended learning, Thai massage for health, adult students, career promotion*

Introduction

The advancement in technology and information have resulted in the development of new learning skills and life skills. The existing skills may not respond to the present and future era. Humans have to learn new skills to survive in the society (Martin, 2010). Developing new skills is essential for learning and living in the 21st century as it can prepare

individuals for digital citizenship in order to respond to the expansion of the economy. Quality labour is a necessary factor in driving economic and national development. Having advanced professional skills and knowledge will increase the workforce capacity to keep up with changes. Career promotion is a personal development through learning to prepare a person for the skills different from the current job (Nadler, 1998). It can increase income and reduce the problem of unemployment. Career promotion for adult students enables them to live in a society with quality of life. Non-formal education and informal education, therefore, will prepare learners for the labour market and help building capacity and skills for work that meets the expectations of society in the future.

Blended learning has an objective to enable learners to achieve learning goals which are in accordance with the development of 21st century skills of learners. Knowledge and experiences are transferred through various media to diverse target groups in terms of age, occupation, interest, background, and place of residence. It is their learning management that combines face-to-face (F2F) learning in the classroom with learning outside the classroom through various online activities and resources. It provides flexible learning that responds to individual differences in terms of learning styles, thinking patterns, interests and abilities of each learner (Bonk & Graham, 2004).

Adult students who studied Thai traditional medicine were the main target population of this research. The study of Thai traditional medicine is practice-based learning. Therefore, career promotion learning for adult students requires blended learning. Face-to-face learning fulfils practical techniques and online learning allows learners to develop learning skills. Learning through various media will promote self-learning, enabling learners to study anytime at their own pace both online and offline. In addition, social learning tools can be used to communicate and ask questions regarding practical skills.

Based on the aforementioned issues, the objective of this research is to study the needs and readiness of the public to join the career promotion in Thai massage health care for adult students via a blended learning model and to develop a blended learning model for career promotion in Thai massage for health for adult students.

Literature Review

Blended learning is an instruction that combines face-to-face learning with online learning. It provides a range of activities, including face-to-face activities between instructors and students, synchronous online interactive activities, asynchronous activities such as discussion board, social media discussion and self-learning through various technology media. The proportion of a blended learning model for organizing the course is approximately 25% to 50% of face-to-face (F2F) learning and 50% to 75% of online learning. In setting the proportion of blended learning, instructors must consider the capacity of the students, the environment and the availability of the technology media. Selecting course content, learning objectives, learning activities in each unit and learning assessments must suit learners and learning environment, according to the blended learning management level.

The instructional design focuses on self-learning through online media based on the Analysis, Design, Development, Implementation and Evaluation (ADDIE) Model (Seels, 1997) which is a learning model for instructional design and development. Based on the principles of the System Approach, it can be applied to design and develop online content for computer-assisted instruction (CAI)/computer-based technology (CBT), web-based instructions (WBI)/web-based training (WBT) and e-learning. ADDIE Model is a comprehensive process and closed system as the feedback from the final evaluation stage will be used to revise the course. The five steps of the ADDIE model include (1) Analysis – to

analyse needs, works, mission, and results, including setting goals and lesson plans; (2) Design – to plan strategies for developing instructional processes and set an outline to achieve teaching goals; (3) Development – to create lesson plans and content materials; (4) Implementation – to effectively and efficiently deliver the course; and (5) Evaluation – to conduct an assessment within and between stages as well as after course termination. Evaluation is required throughout the stages as formative evaluation and summative evaluation.

Thai massage for health focuses on providing body relaxation and relief, especially fatigue caused by work and stress that affect the body and mind. The massage can strengthen both body and mind. It can prevent and relieve illness, as well as provides physical rehabilitation after an illness. Thai massage for health can build a career that enables a person to earn money. According to the director of the School of Traditional Medicine, Wat Pho, Thai massage for the health market had a high value. It is believed that currently, the total market value has increased. Thai massage for health is a profession that can be performed by a single operator by providing a massage service at home. It can be an open service in a community, tourist attractions, as well as luxurious places such as hotels and resorts which are popular among foreigners. This has made Thai massage for health become famous and in demand both in Thailand and abroad.

Research Method

This research mixed-method research for collecting both quantitative and qualitative data. According to the objectives, the research was conducted in two phases.

Phase 1: Exploring the needs and readiness of the public to join the career promotion in Thai massage for health for adult students via a blended learning model

Quantitative data on the needs and readiness of the public to join the career promotion in Thai massage health care for adult students through a blended learning model was collected. The details of the research are as follows: (1) Research population and samples are the general public who are interested in joining the learning process in a blended learning model for career promotion in Thai massage health. The research samples on the needs and readiness of the public to join the career promotion in Thai massage health care for adult students via a blended learning model were obtained by a cluster sampling method. The samples were from (a) Educational institutions that offer courses in Thai traditional medicine in the area of Nonthaburi Province. The selected institution was Sukhothai Thammathirat Open University that offers Thai traditional medicine courses and (b) Institute of Thai Traditional Medicine, Ministry of Public Health, Nonthaburi Province. The selected institution was the Thai Traditional Medicine Health Promotion Centre, Nonthaburi Province.

Then, a simple random method was used to determine the participants based on a voluntary basis. A sample of 108 people were obtained. (2) The research tool was a questionnaire on the needs and readiness to join the career promotion in Thai massage health care for adult students via a blended learning model. The data were analysed by frequency distributions, mean, and standard deviation. Then, the order of the needs and readiness was organized. Opinions and suggestions were used for content analysis.

Phase 2: Developing a blended learning model for the career promotion in Thai massage for health for adult students

The researcher collected qualitative data on the model development approach from 10 experts in learning material design and management, curriculum and instructional design, media and learning innovation development, blended learning design, educational

measurement and evaluation, research in the classroom, as well as research in educational technology and media. The inclusion criteria were experience, academic performance, and expertise. The research tools included (1) a draft of a blended learning model for the career promotion in Thai massage health care for adult students and (2) an interview form for expert opinions on a blended learning model for the career promotion in Thai massage health care for adult students. The data was analysed and synthesised to obtain a guideline for the development of the model. Then, it was evaluated to find the consistency of expert opinions from the five-point Likert scale assessment form by finding mean and standard deviation (SD).

Findings

The results of the needs and readiness of the public to join the career promotion in Thai massage for health for adult students via a blended learning model

Table 1

Needs and readiness of the public to join the career promotion in Thai massage for health for adult students via a blended learning model

Item no.	Questions	Needs and readiness		Result interpretation	Ranking
		M	SD		
Needs in the career promotion in Thai massage health care for adult students					
1	Needs in a Thai massage for health course from reliable and standardized educational institutions	4.62	0.69	Highest	1
2	Needs in part-time learning and on-demand learning through an online course and hands-on training	4.38	0.86	High	2
3	Needs in the career promotion in Thai massage health	4.35	0.86	High	3
4	Needs in the network of learning and cooperation in Thai massage for health	4.34	0.96	High	4
5	Needs in knowledge package and a Thai massage practice course for professional practice or part-time job	4.32	0.88	High	5
6	Needs in inheriting the wisdom and cultural heritage in health care	4.24	0.92	High	6
7	Purposes to participate in the career promotion in Thai massage health care for adult students				
	1) To gain more knowledge and skills in massage	4.44	0.80	High	1
	2) To inherit the wisdom and cultural heritage in health care	4.33	0.90	High	2
	3) To receive a certificate to certify knowledge and skills in Thai massage for health	4.28	1.00	High	3
	4) To have a part-time job and an additional income	4.05	0.95	High	4
	5) To use knowledge for professional practice	3.87	1.05	High	5
	Total	4.29	0.92	High	
Needs and readiness to join the career promotion in Thai massage health care for adult students via a blended learning model					
8	The readiness of blended learning	4.06	0.90	High	-
9	The readiness of network and internet system	3.99	1.00	High	-
10	Readiness and capability of online self-learning devices.				
	1) Mobile phone, smartphone, tablet	4.32	0.90	High	1
	2) Personal computer and notebook	4.09	1.11	High	2
	3) Office computer	3.16	1.40	Moderate	3
12	Readiness in using social media and technology.				
	1) YouTube	4.40	0.95	High	1

	2) Line	4.29	1.01	High	2
	3) Facebook	4.20	1.14	High	3
	4) e-Mail	3.81	1.34	High	4
	5) Messenger (Facebook)	3.65	1.47	High	5
14	Needs for a self-learning model appropriate for yourself.				
	1) Students can review lessons and content and practice continuously through online learning	4.36	0.70	High	1
	2) Students can study videos and multimedia before doing self-practice through online learning materials	4.21	0.86	High	2
	3) Students can continue learning through a learning process that provides opportunities for self-study according to their capacities	4.13	0.87	High	3
	4) Students can study documents and instruction textbook on Thai massage for health by themselves	4.04	1.01	High	4
	5) Students can discuss, exchange knowledge, and interact with other students and ask questions with instructors in an online format	3.98	0.99	High	5
	6) Students can simulate the learning atmosphere in a virtual classroom	3.88	1.18	High	6
15	Needs in the proportion of the content and learning activities	3.74	1.33	High	1
	1) An equal proportion of the content and learning activities				
	2) The proportion of the content more than learning activities	3.53	1.33	High	2
	3) The proportion of learning activities more than the content	3.47	1.28	Moderate	3
16	Needs in additional learning materials				
	1) Massage demonstration videos	4.56	0.66	Highest	1
	2) Manual, book and document in PDF format for self-study	4.24	0.92	High	2
	3) PowerPoint (PPT) with text relating to the content	3.88	1.22	High	3
	4) Cartoon and animation with a lecture from the instructor	3.61	1.36	High	4
	Total	3.80	1.29	High	
21	The benefits of participating in the career promotion in Thai massage for health for adult students through a blended learning model	4.30	0.78	High	

The need in the career promotion in Thai massage health care for adult students. The respondents needed a Thai massage for health courses from reliable and standardised educational institutions at the highest level ($M = 4.62$, $SD = 0.69$). When considering each aspect, the needs included part-time learning and on-demand learning through an online course and hands-on training ($M = 4.38$, $SD = 0.86$), a network of learning and cooperation in Thai massage for health ($M = 4.34$, $SD = 0.96$), knowledge package and a Thai massage practice course for professional practice or part-time job ($M = 4.32$, $SD = 0.88$). Also, the top three objectives that the target group would like to participate in the career promotion in Thai massage health care for adult students were to gain more knowledge and skills in massage ($M = 4.44$, $SD = 0.80$), to inherit the wisdom and cultural heritage in health care ($M = 4.33$, $SD = 0.90$), and to receive a certificate to certify knowledge and skills in Thai massage for health ($M = 4.28$, $SD = 1.00$).

The overall needs and readiness to join the career promotion in Thai massage health care for adult students via a blended learning model were at a high level ($M = 3.80$, $SD = 1.29$). When considering each aspect, the respondents viewed the readiness of blended learning ($M = 4.06$, $SD = 0.90$) and the network and internet system ($M = 3.99$, $SD = 1.00$) at a high level. The top two readiness and capability of online self-learning devices was: 1) mobile phone, smartphone, tablet ($M = 4.32$, $SD = 0.90$) and 2) personal computer and

notebook (M = 4.09, SD = 1.11). The top three social media and technology readiness was 1) YouTube (M = 4.40, SD = 0.95), 2) Line (M = 4.29, SD = 1.01), and 3) Facebook (M = 4.20, SD = 1.14). The needs for a self-learning model were at a high level.

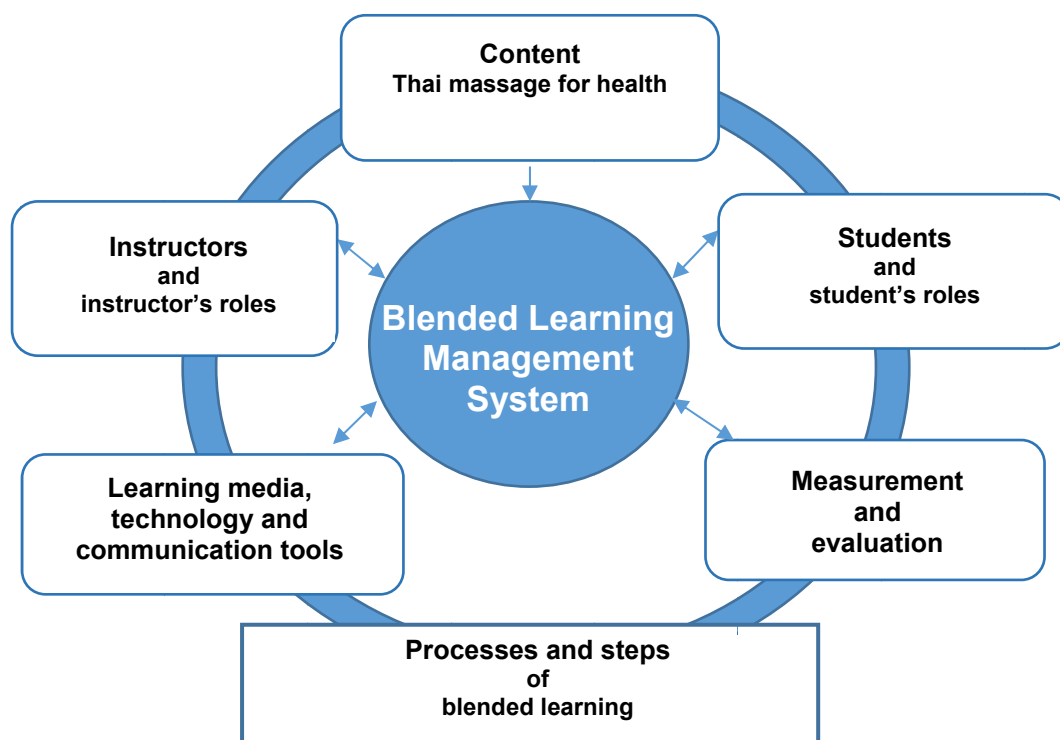
Ranking by the average scores was (1) be able to review lessons and content and practice continuously through online learning (M = 4.36, SD = 0.70), (2) be able to study videos and multimedia before doing self-practice through online learning materials (M = 4.21, SD = 0.86), (3) be able to continue learning through a learning process that provides opportunities for self-study (M = 4.13, SD = 0.87), (4) be able to study documents and instruction textbook on Thai massage for health (M = 4.04, SD = 1.01), (5) be able to discuss, exchange knowledge, and interact with other students and ask questions with instructors in an online format (M = 3.98, SD = 0.99), and (6) simulate the learning atmosphere in a virtual classroom (M = 3.88, SD = 1.18).

In addition, most respondents needed an equal proportion of the content and learning activities (M = 3.74, SD = 1.33). Additional learning materials that respondents needed most were massage demonstration videos (M = 4.56, SD = 0.66) and manual, book and document in Portable Document Format (PDF) for self-study (M = 4.24, SD = 0.92), respectively. Overall, the respondents had a high level of opinion on the benefits of participating in the career promotion in Thai massage for health for adult students through a blended learning model (M = 4.30, SD = 0.78).

The results of the development of a blended learning model for career promotion in Thai massage for health for adult students.

Figure 1

Components of the blended learning model for career promotion in Thai massage for health for adult students



The blended learning model for career promotion in Thai massage for health for adult students consist of seven components: (1) The process of blended learning is a process with

a clear sequence. The content consists of theoretical content and face-to-face activities for practice to develop skills with an emphasis on training to become proficient in professional practice. Additional sources of knowledge and communication tools through forums and social media are available. There are also pre- and post-test as well as continuous and clear monitoring, measurement, and evaluation system, (2) Learning management system (LMS) developed from Google Classroom. Teaching and learning activities are divided into parts, consisting of pre- and post-test, lesson content divided into learning modules, skill assessment activities, massage practice according to practice question and learning content, forums and web board to reflect knowledge in the module content, and an interactive channel for learning exchange between learners and instructions.

Then, (3) the Thai massage for health focuses on using the technique of stacking hands massage which is a technique for using the thumb and pressing along the line and signal to achieve the desired weight. The course is divided into three main modules, (4) Learning media, technology, and communication tools, focusing on the use of video teaching materials "Thai Massage for Health" and also has additional media such as e-book and other additional resources. There are two types of interaction channels: (a) asynchronous tools such as blog and Web board and (b) synchronous tools such as Line, Facebook Group which are used to communicate during the study with the content and learning activities in the online learning system between instructors and learners and learners and learners, (5) Instructor's roles. Instructors conduct activities according to the teaching plan and activity. The role of the instructor is to plan teaching and learning, facilitate learners' learning, set goals and objectives, design and organise learning activities, set problems for practicing Thai massage for health with a learning environment.

Next, (6) Student's roles. Students should be active learners, responsible, self-directed, and self-regulated learners. Students have to study the learning objectives carefully and control the learning time by themselves and choose the subject matter according to their interests through the use of media and technology in both online and offline learning systems, (7) measurement and evaluation, including (a) a knowledge test with pre and post-test according to the model, (b) Thai massage skills assessment form for health. All activity modules are assessed to assess learners' massage practice skills. Suggestions are given for improvement, (c) behaviour observation form to observe the learning participation during the teacher activity and the interaction between learners themselves, and (d) the satisfaction assessment form of the method of learning management to inquire about the opinions of students toward the learning model.

The blended learning model consists of three processes: (1) pre-online learning process which consists of the following sub-processes: (a) orientation is a face-to-face activity to explain LMS usage, (b) student grouping, (c) pre-test and skills assessment, and task setting for learning goals; (2) online learning process consists of the following sub-processes: (a) a study of the objectives and practice tasks, (b) online media learning, (c) explore supplementary learning materials, (d) practice after lesson, (e) knowledge sharing, and (f) reflective knowledge from practice tasks; (3) post-online learning process consists of the following sub-processes: (a) post-test and learning practice assessment, and (b) knowledge summary which consists of the following sub-steps: assess knowledge and practical skills and summarizing and expanding knowledge.

Discussion

The research results are detailed out as the following;

The study of the needs and readiness of the public to join the career promotion in Thai massage for health for adult students via a blended learning model

The study of the needs of the career promotion in Thai massage health care for adult students found that adult students needed a Thai massage for health courses from reliable and standardised educational institutions at the highest level. The needs included part-time and on-demand learning through online courses and practical training, a network of learning and cooperation in Thai massage for health, and knowledge package and courses in Thai massage for health for professional practice and a part-time job. The top three objectives for participating in the career promotion in Thai massage health care for adult students were to gain more knowledge and skills in massage, to inherit the wisdom and cultural heritage in health care, and to receive a certificate to certify knowledge and skills in Thai massage for health.

The first two objectives were in line with Nittayanggoon and Anurat (2015), which studied the needs for human resource development in Thai traditional medicine and alternative medicine. It was found that people who worked in the area of traditional Thai medicine and alternative medicine needed to gain more knowledge and skills in alternative medicine most. There were suggestions from the participants to conduct training on the diagnosis and treatment with Thai traditional and modern medicine which would help enhance an understanding and applying experience gained for more effective treatment.

The overall needs and readiness to join the career promotion in Thai massage health care for adult students via a blended learning model were at a high level. When considering each aspect, the respondents viewed the readiness of blended learning and the network and internet system at a high level. The top two readiness and capability of online self-learning devices were: (1) mobile phone, smartphone, tablet, and (2) personal computer and notebook. The top three social media and technology readiness was (1) YouTube, (2) Line and (3) Facebook.

This is in line with the 2018 Internet User Behaviour Survey Report in Thailand which found that the highest used social media in 2018 were (1) YouTube (98.8%), (2) Line (98.6%), and (3) Facebook (96.0%) suitable tools and websites that serve online learning communities to foster knowledge sharing are Facebook, YouTube, Line, and LMS. The needs for a self-learning model were at a high level. Ranking by the average scores was (1) be able to review lessons and content and practice continuously through online learning, (2) be able to study videos and multimedia before doing self-practice through online learning materials, (3) be able to continue learning through a learning process that provides opportunities for self-study, (4) be able to study documents and instruction textbook on Thai massage for health, (5) be able to discuss, exchange knowledge, and interact with other students and ask questions with instructors in an online format, and (6) simulate the learning atmosphere in a virtual classroom.

Besides that, most respondents needed an equal proportion of the content and learning activities. Additional learning materials that respondents needed most were massage demonstration videos, manuals, books, and documents in PDF format for self-study, respectively. Overall, the respondents had a high level of opinion on the benefits of participating in the career promotion in Thai massage for health for adult students through a blended learning model. This is in line with the research of Jessadangkulna Ayutthaya and Thepnuan (2019), which studied the satisfaction of the participants who joined the online

training package on stress relief massage for working people in Pathum Thani Province. It was found that the participants were satisfied at the highest level. This online training package allows participants to review and study by themselves at the highest level.

The development of a blended learning model for career promotion in Thai massage for health for adult students.

The components of a blended learning model for career promotion in Thai massage for health for adult students consisted of seven components.

- i. Component 1: Process of blended learning. An integral part of an instructional process is to present the theoretical content to create knowledge and understanding and to provide face-to-face activities to create skills for actual practice. There should be activities that provide training to foster work efficiency. This is in line with Graham, Allen, and Ure (2003) that blended learning was the combination of instruction through teaching materials, a blended instructional method, and a combination of face-to-face teaching and online teaching.
- ii. Component 2: Blended Learning Management System (LMS). Oliver and Trigwell (2005) stated that blended learning featured a combination of web-based instructional technology to achieve learning objectives. It is also a combination of technology for specialised programmes and training and a combination of technology with the usual work and study.
- iii. Component 3: Course of Thai massage for health. The content of massage for health focuses on knowledge and practice skills. Therefore, a blended learning model is an effective method in transferring the content.
- iv. Component 4: Learning media and technology and communication tools. It is a component to drive the process and interactions of the people involved. This is consistent with Allen and Seaman (2005) mentioning that instructors should consider the potential of learners, environment, the readiness of media technology in setting the blended learning proportion. Learning content, objectives, activities of each unit, and evaluation should be set to suit learners and learning environments.
- v. Component 5: Instructor and instructor's roles.
- vi. Component 6: Learner and learner roles. These are two human components that need to be addressed. Reigeluth (2012) mentioned that instructors have to switch the role from a guru on stage to be a guidance provider. The three important roles of instructors are to be a learning activity designer, a helper in the learning process, and a supervisor and a consultant. The development of capacities and skills of both learners and instructors is through information technology. Thus, computers and information technology skills and digital skills must be developed constantly. To keep up with the designed blended learning activities, learners must be guided in terms of information technology for learning which is important in the digital age. Learners should be prepared to use information technology and communication tools for effective learning (Garjets & Hesse, 2004).
- vii. Component 7: Measurement and evaluation. There must be an evaluation throughout the process of blended, including pre-assessment, self-paced evaluation, and post-study evaluation which will lead to further learning development.

The blended learning model consists of 3 processes and phases. The pre-online learning process consists of the following sub-processes: orientation, LMS usage, student grouping, pre-test, and skills assessment, and task setting for learning goals. Instructors must plan and design the instruction and select and identify practice questions that enable learners to apply knowledge according to learning objectives. Instructors also need to set activity strategies, collect learning resources, and plan and design the assessment of learning outcomes (Seels & Glasgow, 1998; Knirk & Gustafson, 1986). The online learning process consists of the following sub-processes: a study of the objectives and practice tasks, online media learning, exploring supplementary learning materials, practice after the lesson, knowledge sharing, and reflective knowledge from practice tasks.

Bergmann and Sams (2014) mentioned that using meaningful learning activities and hands-on experience will help learners to understand difficult concepts and be able to build their knowledge through practicing and learning with others in the class. From observing the participatory behaviour of the learners, it can be seen that part of the knowledge creation comes from knowledge sharing. The post-online learning process consists of the following sub-processes: post-test and learning practice assessment and knowledge summary and expanding knowledge. Combining knowledge gained from the learning process with previous knowledge and knowledge from further research will expand learner's knowledge. This will expand the learner's vision and fulfil existing experience. Instructors must encourage learners to raise points for discussion and share opinions. The three processes and phases of blended learning are consistent with the research of Naowanich and Wannapiroon (2012) which developed blended learning through m-Learning. The study consisted of three steps: pre-learning process, learning process and learning evaluation.

Conclusion

This research aims to study the needs and readiness of the public to join the career promotion in Thai massage health care for adult students via a blended learning model and to develop a blended learning model for career promotion in Thai massage for health for adult students. The demand for promoting Thai massage careers for adult students shows that there were in needs in Thai massage courses for health from reliable educational institutions. It can be either, part-time or on-demand learning through an online course and hands-on training, network of learning and cooperation in Thai massage for health, and knowledge package and a Thai massage practice course for professional practice or part-time job. The needs and readiness for a blended online teaching model were at a high level. The model consists of seven components and three processes. It focuses on combining learning activities and practice with online learning and exchange of knowledge and comments from practice to continuously expand knowledge to enable learners to apply in professional practice. Blended learning activities allow learners to study at self-paced, resulting in active learning. Students will develop learning skills and continuous practice, making them skilful in the area of practice. A suggestion to apply a blended learning model to further research in a distance learning context is to adjust the proportion of face-to-face learning and online learning to be suitable for each learning field. Learning activities can be adjusted in accordance to the proportion of the blended model. Furthermore, when applying a blended learning model, learning activities should be adjusted to suit the science of profession and emphasise the use of tools to measure results of practice and assignment submission as to see the development of skills to strengthen the career and to apply them.

Acknowledgment

The author would like to acknowledge the financial support of the Distance Education Research Grant, Institute for Research and Development, Sukhothai Thammathirat Open University.

References

- Allen, I. E., & Seaman, J. (2005). *Growing by degrees: Online education in the United States, 2005*. http://www.sloanc.org/publications/survey/pdf/growing_by_degrees.pdf
- Bergmann, J., & Sams, A. (2014). *Flipped Learning: Gateway to student engagement*. International Society for Technology in Education.
- Bonk, C. J., & Graham, C. R. (Eds.). (2004). *Handbook of blended learning: Global perspectives, local designs*. Pfeiffer.
- Graham, C.R., Allen, S., &Ure, E. (2003). *Blended learning environments: A review of the research literature*. Unpublished Manuscript. Provo, Utah.
- Jessadangkulna Ayutthaya, P., &Thepnuan N. (2019). The development of online training package on relaxing massage for working people in Patum Thani province. *Journal of Educational Review Faculty of Education in MCU*, 6(2), 82-92. <https://so02.tci-thaijo.org/index.php/EDMCU/article/view/196222>
- Knirk, F. G., & Gustafson, K. L. (1986). *Instructional technology: A systematic approach to education*. Holt Rinehart & Winston.
- Martin, J. (2010). *The meaning of the 21st century*. Bangkok, Thailand.
- Nadler, A. (1998). Relationship, esteem, and achievement perspectives on autonomous and dependent help seeking. In S. A. Karabenick (Ed.), *Strategic help seeking: Implications for learning and teaching* (pp. 61-93). Lawrence Erlbaum Associates.
- Naowanich, E., & Wannapiroon, P. (2012). Blended learning model by using inquiry-based learning via m-learning. *Academic Services Journal, Prince of Songkla University*, 23(3).
- Nittayanggoon, S., & Anurat, T. (2015). The study of personnel development requirements on Thai traditional medicine and alternative medicine. *Journal of Nursing and Education*, 8(1), 41-57.
- Oliver, M., & Trigwell, K. (2005). Can 'blended learning' be redeemed? *E-Learning*, 2(1), 17-26. doi:10.2304/elea.2005.2.1.17
- Reigeluth, C. M. (2012). Instructional theory and technology for a post-industrial world. In R. A. Reiser & J. V. Dempsey (Eds.), *Trends and issues in instructional design and technology* (3rd ed.) pp. 75-83. Pearson.
- Seels, B. (1997). *The relationship of media and ISD theory: The unrealized promise of Dale's cone of experience* [Presentation]. Selected Research and Development Presentations at the 1996 National Convention of the Association for Educational Communications and Technology 1997. <https://www.learntechlib.org/p/81879/>
- Seels, B., & Glasgow, Z. (1998). *Making instructional design decision* (2nd ed.). Merrill/Prentice Hall.