

BEYOND DISRUPTIVE ELEARNING: HOLISTIC HEALTH INTEGRATED LEARNING CONCEPT

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ABSTRACT: *The main objective of this study was aimed to propose an Integrated Learning Concept (ILC) for holistic healthcare. The ILC was developed to alleviate the crisis from the fact that people around the world, including Thailand, can now access a substantial amount of health care knowledge from various online sources, however, the percentage of ailment and premature death from non-communicable diseases (NCDs) is still high. With a literature review, the researcher's direct experience as a pharmacist in Thai traditional medicine as well as an in-depth expert interview, ILC was designed to provide learners self-medicated healthcare knowledge and inspire learners to change the everyday choice they made to enhance their state of wellness. ILC was beyond disruptive eLearning. It was a blended learning approach that integrated online learning (a combination between traditional eLearning and online social learning) and traditional classroom with standard health check and Dhatu check. ILC was designed to disrupt the idea that traditional eLearning is the approach that best fits with all dimension of learning. ILC was developed to overcome the shortcomings of eLearning and to enable people to have better comprehension in holistic healthcare. And once the development was finished, ILC shall be tested by comparing with a traditional eLearning class.*

Keywords: eLearning, Integrated Learning, Holistic Health, IFARM, Non-communicable diseases (NCDs)

Introduction

Background of the study

Non-communicable diseases or NCDs are the world's predominant killers. Only in Thailand, it leads to approximate 320,000 deaths or relatively 75 percent of all deaths each year. And, more seriously, about 54 percent of the NCD deaths in the year of 2000 is considered as premature mortality (Ministry of Public Health, 2017). And according to the 12th National Health Development Plan (2017), it clearly stated that the root cause of sickness and premature mortality is mainly due to lack of proper health literacy to protect themselves from health risk factors. As a consequent, Thailand has to spend higher and higher expenditures on public healthcare problems. In the IMD World Competitive Yearbook (2017) by the International Institute of Management Development (IMD), Thailand's expenditures on

healthcare problems are about 4.6 percent of Gross Domestic Product (GDP) in 2016.

Living in a decade where rapidly advanced technology is enabling people to gain knowledge at a speed formerly inaccessible. Information and communication technology (ICT) in particular, has strategically become a vital component in the learning process. eLearning business is perceived as a raising field. The global eLearning market has continuously shifted, grew and evolved which is obviously demonstrated by huge budget allocations for eLearning programs, the dominant prevalence of eLearning across the world, emergence of new technologies and tools that support eLearning, as well as the expanding role of social learning as a top learning and development priority (Erba, 2016). Due to potential growth and adoption of eLearning, it dynamically affects all of the aspects of the individual's lives including

the social interaction, knowledge dissemination, business practices, media, political engagement, education, entertainment and also healthcare (Li, Qi, Wang, & Wang, 2014). It is expected to be an effective enabler to improve the health of people, both directly and through improved workforce capacity and accessibility (Al-Shorbaji *et al.*, 2015).

Statement of Problem

However, although people can nowadays access a piece of vast information on healthcare knowledge, however, the number of ailing populations and premature death from non-communicable diseases is highly anxious. A significant study by two social organizations – Health Feedback and Social Coalition reported that seven or eight news of the most ten shared health articles on social media in 2018 contain misleading or fake information (Teoh, 2019). There are only three news which achieved a high credibility rating. For instance, the most shared article (1,075,000 interactions) titled “Federal Study Finds Marijuana 100X Less Toxic Than Alcohol, Safer Than Tobacco” was highly inaccurate. This article received -13 credibility rating. The survey results further stated that the high level of interest may result from various factors, for example, potential therapeutic benefits of marijuana in various medical conditions, and the fact that marijuana is a popular recreational drug.

The above-mentioned examples of healthcare problems are synchronized with some existing findings. According to James (2015), he mentioned that eLearning or online learning has eight disadvantageous points. Among them, these are five critical areas: i) no or lesser self-discipline, ii) no face-to-face interaction – there is no social learning, iii) lack of flexibility – it is not optimal for the learning field with more complex skills and competencies, iv) lack of inputs from an instructor – eLearning is structured. Learning material become outdated quickly and it is quite difficult to

respond to what the learners need and now they need to learn, and v) lack of transformational power – it is highly effective for imparting certain kinds of knowledge. But for game-changing learning, live connection with a highly experienced instructor is more optimal. In International Journal of Education and Research, Valentina (2014) also mentioned that eLearning is not suitable for all fields of education. It is more appropriate in social science and humanities rather than medical science and pharmacy, where there is a need to develop practical skills.

Based on the aforementioned anxious NCD-related health situation in Thailand and critical shortcomings of traditional eLearning to optimally deliver and to fully comprehend people about holistic health, Integrated Learning Concept (ILC) was developed to disrupt traditional eLearning on some dimensions of health learning with the aim of enhancing the state of wellness of the people fully.

Research Objectives

This study aims to design and develop Integrated Learning Concept (ILC) to be used to improve holistic health care comprehension for IFARM members in Thailand.

Research Questions

Significant questions need to be addressed in relation to this study - design and development of Integrated Learning Concept (ILC) - are as follows:

- 1) What is Integrated Learning Concept (ILC)?
- 2) What are the key ILC components?
- 3) How does ILC function?

Definition of Terms

Integrated Learning Concept (ILC): It is a proposed holistic health learning concept that combines online learning (LMS & Online Social Learning) and regular classroom with basic health diagnosis and Dhatu identification.

Holistic Health: It is an approach to be healthy which considers the whole person and how he or she interacts with his or her environment. It emphasizes the connection of mind, body, and spirit. The goal is to achieve maximum well-being, where everything is functioning the very best that is possible. People who apply holistic healthcare to life, they accept responsibility for their own level of well-being. (Allison, 1999).

IFARM: IFARM is a private learning institute in Thailand which has extensively provided learning on a healthy, green lifestyle and agriculture for years. Each year there are a number of people, both Thai and foreigners, coming to learn at IFARM. Up to June 30, 2019, there are 3,016 people who registered as IFARM members. It has an herbal garden in Saraburi province and has its presence in the virtual world.

Literature Review

Health Situation in Thailand

Critically, non-communicable diseases or NCDs was Thailand's predominant killers. According to the 5-year National Non-Communicable Diseases Prevention and Control Strategic Plan (2017-2021) of the Ministry of Public Health, stated that the mortality from NCDs is annually about 320,000 people or three-fourths of the total deaths. And, more seriously, about half of the NCD-related deaths in a year of 2000 was regarded, according to the definition of the World Health Organization (people who die under the age of 70), like premature death (Ministry of Public Health, 2017).

A report conducted by the Ministry of Public Health apparently revealed that non-communicable diseases such as cancer, diabetes, cerebrovascular disease, ischemic heart disease and chronic kidney disease (CKD) were the major cause of sickness and premature death in Thai people (Ministry of Public Health, 2017). According to Schroede (2007), it reported

that health affecting factors and their contribution to premature death are behavior pattern (40%), genetics (30%), social circumstance (15%), health care (10%) and environment exposure (5%) respectively. This clearly indicated that behavior patterns or everyday choices people make were the most critical determinant affecting the state of wellness. Medical treatment has a very minor role. And, according to the 12th National Health Development Plan (2017), it stated that the root cause of sickness and premature mortality is mainly due to lack of proper health literacy to protect themselves from health risk factors. A health literacy survey campaign against non-communicable diseases conducted by the Ministry of Public Health showed that about three-fifths (59.4%) of the total population has not enough basic healthcare knowledge.

Anxious NCD situation in Thailand results in a dramatic increase in the government's expenditure on public healthcare problems. In the IMD World Competitive Yearbook (2017), Thailand's expenditures on healthcare problems is almost 5 percent of GDP in 2016. Furthermore, Health at a Glance Thailand (2017) shows that nearly 80 percent of the total health expenditure in the year 2014 is mainly derived from the government sector.

Holistic Healthcare

Even Jan Christian Smuts first time stated the term "holism" in a Holism and Evolution book in 1926, "Holistic Healthcare" was relatively a new term to a large number of Thai people. Allison (1999) defined holistic healthcare as an approach to health which considers the whole person and emphasizes the connection of mind, body, and spirit. Holistic healthcare concept believes that the maximum state of well-being is a result of the strong synergy of physical, mental, spiritual and environmental components. The meaning of holistic healthcare term is very close to the World Health Organization (WHO) health definition.

According to WHO (1948), health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Both terms emphasize the total synergy of physical, mental and spiritual components rather than one or more separate components. The physical ailment can lead to mental sickness. And mental or spiritual sickness can also lead to the body health. According to Non-Communicable Diseases Country Profile (2018), it stated that, in 2016, suicide caused almost 800,000 deaths worldwide. This is the second dominant cause of death among young adults. This obviously implies that mental health is one of the critically significant non-communicable ailments of the world, including Thailand.

Holistic healthcare is proactive and preventive healthcare. Its goal is to help people achieve maximum well-being, where everything is functioning the very best that is possible. It encourages people to become knowledgeable and accept responsibility for their own level of well-being. And when people properly know how to nourish their own wellness, it shall, to a large extent, prevent people away from non-communicable diseases.

From east to west, holistic healthcare contains many health principles. ILC selects four priority health principles: Holistic health & Daily Healthcare, Medicinal Plants in daily life, Dhatu (body elements) for Health and Arm Swing Exercise (ASE).

eLearning

eLearning is a terminology that was variously defined. It was simply termed in contradiction with traditional classroom or face-to-face learning (Ryan, Kaufman, Greenhouse, She, & Shi, 2015). Similarly, eLearning is widely regarded as the alternative of traditional learning approach and it can also be a complementary to it (Kumar Basak, Wotto, & Bélanger, 2018). The most outstanding feature of eLearning was the absence of a physical classroom which was replaced by advanced web-

based technology (Bernard, Borokhovski, Schmid, Tamim, & Abrami, 2014). It was typically operated through two types of learning settings: learning management system (LMS) or virtual learning environments (VLE) (Pellas, 2013). Including the study from Sajja (2016) is electronic learning, supporting learning through all forms of electronically supported devices and tools. ICT infrastructure has been serving as an efficient platform to enable eLearning system.

In academic term, while Cook & Sutton (2014) defined eLearning as the use of various kinds of electronic media and Information and Communication Technologies (ICT) in education, Weiss (2016) regarded it as the use of electronic educational technology in teaching and learning. Recently, Kafyulio (2015) referred eLearning to learning which was fully or partly managed via electronic media and devices such as computers, mobile phones, iPad or others in school or at distance. In broader context, (Vontas, Moutzi, & Urwin, 2015) defined eLearning as the delivery of content via electronic media, such as the internet, video, interactive TV and CD-ROM. eLearning encompasses all learning undertaken, whether formal or informal, through electronic delivery.

Advantages of eLearning

eLearning has increasingly become popular among academic institutes and non-academic corporations because it provides inherent advantageous points to the learning process. Mentioned by Clover (2017), some benefits of eLearning are as the following: i) it enables learners to learn anywhere and at any time, ii) it provides flexibility and convenience – learners don't have to depend on anyone for anything, iii) learning resources are available in varying formats, and iv) learning can be rewound and seen and heard repetitively.

In the Thai context, eLearning has been widely used in both academic and

corporation sections. According to Jitboonyapinit (2015), her research finding showed that Mathayomsuksa I students under eLearning had higher learning achievement in an information technology course than a traditional classroom.

Disadvantages of eLearning

Even eLearning is an incredibly powerful learning approach, however, many findings showed that it obviously has some crucial drawbacks. It is not effective in all cases, particularly for health learning. According to Pande, Wadhai, & Thakare (2016), eLearning has some certain drawbacks which include, for example, like the following: i) it makes learner bear remoteness as it lacks interaction, ii) it may be less effective in term of clarifications, explanations, and interpretations, iii) learners might lack communication skills, and iv) it does not best fit with all fields or disciplines. Furthermore, in his article of Eight Disadvantages of eLearning, James (2015) wrote that eLearning lacks transformational power. It is effective for imparting certain kinds of knowledge. But it is difficult or impossible to deliver “game-changing experience” from the experienced practitioner. He further stated that eLearning has no peripheral benefits. Learning together in a group with experts, if it is properly structured, the dynamic of personality, intelligence, vision, and creativity all intertwine to create a group that is more than the sum of its parts.

Crucially, in a dimension of health learning, Arkorful & Abaidoo (2014) also mentioned in International Journal of Education and Research, that eLearning is not suitable for all fields of education. It is more appropriate in social science and humanities rather than medical science and pharmacy, where there is a need to develop practical skills.

Blended Learning / Integrated Learning

Blended learning is also known as hybrid learning (Ucar, 2019). Similar to eLearning, Blended learning has been

defined in many perspectives. While (Lencastre & Coutinho, 2015) defined blended learning as a learning system that usually transmitted content over the internet but also included face-to-face learning approach, Thindwa (2015) similarly defined as a learning approach which uses both traditional face-to-face classroom instruction and technologically-mediated online instruction. It is an innovative learning concept that integrates the strengths of both traditional learning class and ICT supported learning including both offline and online approach (Lalima & Dangwal 2017). Recently, Ngigi & Obura (2019) stated in their research handbook “Blended Learning in Higher Education: Challenges and Opportunities” that blended learning is an integration of online and face-to-face instruction in order to promote engagement and improves outcomes by learners through optimization of teaching and technology. It aims to improve the outcome of learning. Moreover, cited by Mubayrik (2018), blended learning dominantly served a vital trend in the adult workforce environment.

Online Social Learning

Social network is rapidly changing our relationship to knowledge (Mccarroll & Curran, 2015). According to (Altman, 2018), social learning is one of the biggest business trends in the year of 2018. As technological advancement has potentially enabled employees to learn online, this distances employees from each other, leaving many businesses to an unfriendly working environment. Thus, the corporations that accomplish this transitional age are the ones that undertake technology to meaningfully facilitate social connections (Altman, 2018).

In learning perspective, in recent years online social learning has tremendously gained popularity as it initiates interaction and collaboration. Interaction in online learning is very much significant for effective learning because it is not only student-student interaction that

matters (Raspopovic, Cvetanovic, Medan, & Ljubojevic, 2017). Froment, Javier, & Bohorquez (2017) stated that even though social networks were not originally invented for academic applications, they are gradually being used as a means of communication between instructors and students. It nowadays becomes a vital teaching-learning component by providing new possibilities for communication and interaction and creating new learning spaces.

Relevant Research and Case Study

People in Thailand can vastly access health information from online sources. And, there are much inaccurate or misleading news, particularly for health articles, which were circulated on the internet. A Thailand's famous medical technologist, Dejhasadin (2016), mentioned that almost all (80-90%) of the health information that was shared and circulated on social media platforms is not true and accurate. Take some examples are "drinking soda with lime helps cure cancers", "drinking ginger water helps cure black lung of smoking", and "use mashed chili to apply on the wound when a snake bite. Apart from not curing the disease or symptom, it can be very much harmful to life.

Thanks to rapidly advanced mobile technology and substantial growth of social media the platform, several corporations and individual people have extensively provided healthcare knowledge courses on the internet. However, from an in-depth interview with Puangmalai or Mor Chat (Mor means doctor in Thai and Chat is a short form of Puangmalai's first name) who has been known as Thailand's renowned Thai traditional physician, it was found that many people who came to see her at the clinic were sick because they followed or practiced what they learned from online sources or social media platforms.

First case is one female who has cancer. Her health was seriously worsened after drinking alkaline water heavily. This

lady patient mentioned to Mor Chat that she learned (from a certain online course) that the root cause of cancer is oxygen deficiency which then creates an acid state in the human body. And she was advised to drink alkaline water to reduce acidity in her body. After had been drinking too much alkaline water for a long period of time, it resulted in the malfunction of her kidney system.

The second case is another health-conscious female. She very much loves surfing the internet for self-medicated healthcare knowledge. One day she read an article about "Dhatu: How to eat healthily". The article tells her how to find dominant Dhatu from birthdate and then recommends her foods that shall help enhance her Dhatu and make her stay healthy. Mor Chat mentioned that this health-conscious lady was ailing because the online article provides inaccurate and insufficient Dhatu identification information. Dhatu of each person is dynamic. It may change from time to time. It is possible that Dhatu-Pad-Ju-Ban (Dhatu that is presently dominant) may not be same as Dhatu-Chao-Ruan (Dhatu that links to birthdate). Dhatu identification of each person is quite complicated and needs certain expertise and experience. Moreover, it needs to deeply diagnose outstanding appearance and characteristics of each person.

Mor Chat further emphasized that health is a quite sophisticated issue. Self-learning certain healthcare knowledge solely on online may not sufficient and may result in more harmful effects. In the study of the accuracy of socially shared health article conducted by conducted in collaboration between two social organizations - Science Feedback and Credibility Coalition, to avoid misleading information and erroneous conclusions, it clearly stated that the journalists need to ensure that the articles have complete detail and context, do not overstate the significance of the research and findings, and do not misinterpret the findings (Teoh, 2019). Furthermore, a journalist needs to

present scientific findings in a balanced way and provide enough context to help readers to understand the full picture (Teoh, 2019).

While online sources of information or online courses are the storehouse of information and knowledge, they also could be the storehouse of misinformation and poorly guided knowledge.

Thanks to the substantially anxious health situation in Thailand, the inadequacy of proper health knowledge, and shortcoming of eLearning on certain health perspectives, the Integrated Learning Concept (ILC) - the blended learning approach towards a healthy state of living - was then designed and developed to holistically enhance self-medicated knowledge of people with the ultimate goal of maximizing the state of wellness of the people.

Research Methodology

The methodology used in the development of ILC is qualitative type. It includes deep literature review, the researcher's own experience as an herbal pharmacist in Thai traditional medicine, and an in-depth interview with three experts in field of Thai traditional medicine and holistic health.

Health Experts

1) Mr. Ratchtavron

He is a Thailand's renowned Thai traditional medicine physician. His expertise was witnessed by healing certain members of the royal family of foreign countries. He always inserts mind-enhancing recommendations during healing.

2) Mrs. Puangmalai

She is a Thailand's renowned Thai traditional medicine physician from Petchburi province. She was awarded as the best physician of Khet 5 in 2015. She has operated Thai traditional medicine clinic for years, since her father's time. She has

also concerned with several royal medicinal plants project.

3) Mr. Puntavanun

He is a practitioner of Thai traditional medicine who is registered and licensed to practice Thai traditional medicine by the Thai Traditional Medical Council. Furthermore, he is very keen on developing foods from medicinal plants.

The interview was conducted to find out, from their expertise, experience, and knowledge, what the health learning problems were. The interview duration was approximately 30 minutes each. The interview has 15 questions. Consequently, the results of interview were fully analyzed. Methodologically, answer responding to each question from three experts were gathered in tabular format. The content was then reviewed. If the answers obviously show consensus argument (at least two out of the three), the content of that question is valid for further consideration.

The examples of questions and responding answers are as the following:

1. Do you think that fully online learning or traditional eLearning best fits with all fields of holistic health education?

Expert	Point of View	Y/N
1st	Absolutely, No. For certain knowledge, I think it needs close suggestion / clarification or explanation from a health expert, for example, Dhatu check.	No
2nd	Likely, No. eLearning is not suitable for the content which needs practical skills such as body massage or certain kinds of exercises.	No
3rd	It does not fit with every circumstance.	No

Consensus conclusion (3 out of 3): traditional eLearning does not fit with all fields of holistic healthcare education.

2. For the maximum efficiency of learning, do you think that instructors should be certified?

3. Expert	Point of View	Y/N
1st	Yes, it is. This is to ensure accurate learning content and information as health is a critical issue.	Yes
2nd	Yes, it should be a certified health expert.	Yes
3rd	Not necessary. The experienced people who has been recognized are acceptable.	No
Consensus conclusion (2 out of 3): The instructor should be a certified health expert.		

3. According to the learning topics in this research, do you think that health check and Dhatu check is beneficiary to learning?

Expert	Point of View	Y/N
1st	Yes, it is. It will help the instructor to gather health information of learners.	Yes
2nd	Good idea as it enables the instructor to know basic health status. Health is an individual issue. Not all implications fit to everyone.	Yes
3rd	Yes, but it must be conducted by physician or health expert.	Yes
Consensus conclusion (3 out of 3): Health check and Dhatu check prior to		

learning is beneficiary to holistic health learning.

4. According to the World Health Organization, in 2016 the global mortality rate from suicide was approximately 800,000 deaths. It means that many people was mentally sick. Do you think that it is beneficiary to educate physical health and mental health knowledge in a course simultaneously?

Expert	Point of View	Y/N
1st	Yes. Because physical and mental being is absolutely linked.	Yes
2nd	It is good if it is done because when people come for medication, I have often stressed the importance of mind towards well-being. I have also tried to integrated religion during communication with them as mind and body must in balance.	Yes
3rd	It is a great idea. Nowadays, more and more people feel sick from depression. If people are mentally healthier, their health will be holistically improved.	Yes
Consensus conclusion (3 out of 3): Physical health and mental health knowledge should be taught simultaneously		

5. Do you think that classroom learning is essential for holistic healthcare course?

Expert	Point of View	Y/N
1st	Yes, at least 1-2 times. It has many advantages. For instance, an	Yes

	instructor can provide guidance prior to learning to learners or show some practical knowledge clearly.	
2nd	Yes, it is essential because it can help an instructor and learners know each other. Teaching and learning shall be more productive and efficient.	Yes
3rd	Highly suggested to have it as it can make learning alive and trigger interaction easier.	Yes
Consensus conclusion (3 out of 3): A classroom learning is essential.		

6. If extended knowledge (apart from the course) is provided to learners via social media such as Facebook and Line, do you think that these two social networks may help enhance the learning performance?

Expert	Point of View	Y/N
1st	I think so if the content is interesting. But format and presentation of learning content should be different from the learning in the course.	Yes
2nd	Not too sure but at least it helps learners to access the information easier as almost everyone nowadays uses social media.	No
3rd	More or less, it can help as today many people use it.	Yes
Consensus conclusion (2 out of 3): Facebook and Line may help enhance the learning performance.		

The consensus conclusion from expert interview was consequently analyzed incorporation with literature

review and the researcher's own experience as an herbal pharmacist in Thailand traditional medicine as well as online and offline learning provider for years, the findings of the researcher are Integrated Learning Concept (ILC) which was illustrated in Figure 1.

Research findings and Discussion

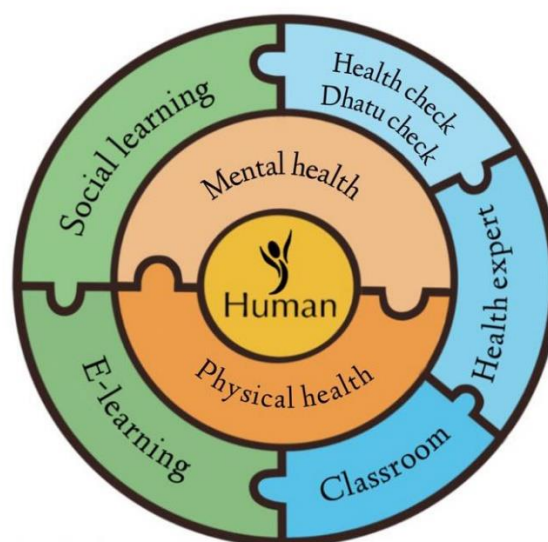


Figure 1: Integrated Learning Concept (ILC)

Source: Teranitiwath & Vate-U-Lan (2019)

To answer the 1st research question, the figure of Integrated Learning Concept was illustrated. From figure 1, holistically, the human is the focal point of the concept. ILC has six key components and all components are elaborately designed to enhance the state of wellness of the human. ILC vitally has six interrelated components and each component is interlocked like a jigsaw puzzle, missing one piece cannot make a complete image. It is very much like the concept of holistic health, where the whole is greater than the sum of its parts. Each component cannot be regarded as inseparable view.

Six components of ILC

With consensus conclusion from expert interview, literature review and the

researcher's own experience as an herbal pharmacist in Thailand traditional medicine as well as online and offline learning provider for years, the ILC was then invented with six key components.

The ILC was developed by selecting the strengths of two significant learning modes – traditional classroom (offline mode) and online learning (online mode) With the purpose of overcoming the shortcomings of an appropriate eLearning on health, ILC was strategically designed as a proactive blended learning approach which integrates, in a significant and meaningful way, the inherent advantages of online learning (a combination between eLearning and online social learning) and traditional classroom (Lencastre & Coutinho, 2015). In order to answer the 2nd research question, the key ILC components found from the interview results, ILC was formulated from six components, details of each component are fully described as follows:

Component #1: Traditional Classroom

This is a foundation component of ILC since it supports the effectiveness of contents delivered online. According to the literature review and three in-depth interviews, 100% online learning is not the optimal option for some certain healthcare learning perspectives. Therefore, in order to avoid misleading information and erroneous conclusions, some learning topics in this study, for instance, Body Elements or Dhatu and Arm Swing Exercise, need face-to-face involvement and need learners to expose real-life experience.

In the in-depth interview, Puangmalai (2018) mentioned that body elements or Dhatu issue is highly complicated and needs proper guidance from health expertise. Solely learning from an online source or internet is inadequate and may mislead the learner to harmful healthcare problem. She further stressed that it is imperative that Dhatu learning is done under a face-to-face learning

environment and taught or recommended by certified health expertise only. Additionally, all three health experts had consensus argument that traditional classroom is beneficiary to holistic healthcare learning. Furthermore, fully online learning makes learner bear remoteness as it lacks interaction and may be less effective in term of clarifications, explanations and interpretations (Pande et al., 2016), traditional the classroom are therefore proved to be an essential component of ILC as it was designed to overcome drawback of traditional E-learning.

Component #2: Health Check & Dhatu Check

From the result of the expert interview, all three health experts mentioned that health check and Dhatu check is necessary prior to learn as it enabled an instructor to know the health status of learners and may trigger learners' interest in learning. As a consequent, health check and Dhatu check was included in ILC's component. Prior to online learning under ILC, standard health check and Dhatu check shall be simultaneously conducted in the traditional classroom environment. In this crucial step, the personal health data and Dhatu data shall be confidentially recorded and may be used as reference information if any learners have any question on their personal questions during the learning period. This is to ensure that answers best fit with each individual learner. Consequently, it may help improve learning outcome.

Component #3: Health Expert

Based on relevant research and case study from Mor Chat, it was obviously found the people are sick because they do not have proper self-medicated knowledge. Additionally, they access inaccurate health information which is vastly shared on the internet (Teoh, 2019). Including consensus result from the expert interview, instructors under ILC needs to be health experts with

reliable certificates. This is to ensure the creditability and accuracy of the learning content. Subsequently, health expert was added as a crucial component of ILC.

Component #4: Traditional eLearning

Traditional eLearning class extensively plays a vital and integral role in ILC. Traditional eLearning or online learning was elaborately integrated as a component of ILC because it enables learners to learn anywhere and at any time, provides flexibility and convenience and learning content can be rewound and seen and heard repetitively (Clover, 2017). Including the study from Jitboonyapinit (2015), learning achievement in eLearning class was significantly higher than a traditional classroom.

With a key purpose of providing dynamic learning content and learning information in an officially structured format, ILC was strategically designed to exploit the inherent strengths of the website. It uses Joomla web program, an internationally accredited open source and free CMS (Content Management System) to design and develop a website as the core spine of the learning platform. LMS (Learning Management System) and other learning technologies are optimally integrated and synchronized to empower the learner and also to enhance the learning experiences.

eLearning under ILC is a managed learning program. The learners need to enroll in registration and follow learning policy and guidance strictly. And with the ever-increasing ubiquity of the smartphone and mobile devices, ILC's website is potentially invented to allow learners to access learning class from various devices with the best possible experience. It enables the learners to learn and to repeat learning anytime and anyplace.

Apart from being online learning channel, the website was designed to extensively provide a tank of holistic health knowledge and other relevant information.

This can be extensive resources for the learners on an instant basis.

Component #5: Online Social Learning

ILC is equipped with social media platform such as Facebook group, YouTube and Line. The vital goals of integrating online social learning as one of the crucial components of ILC is to provide new possibilities for communication and interaction and creating new learning spaces (Froment et al., 2017). It dominantly aims to i) to support traditional eLearning and to provide extra knowledge and information to learners, ii) to urge learners to participate in all learning activities and to repeat their learning and practice properly, and iii) to encourage interactions between the instructors and the learners as well as among the learners (Raspopovic et al., 2017). Online social learning component was aimed to enable learners to interact and observe their interactions results while responding to and engaging with others, leading to a possible development of a more cohesive community of learners. Forms of online social learning under ILC include extra learning objects (video, image and text), Q & A session and game playing and so on. Facebook (Closed Group) was strategically selected as the focal social platform. And other social media websites such as Youtube and Pinterest were linked to the focal point to enhance the state of collaborative learning. Moreover, as "Line" is one of the most popular technology platforms which enables learners to communicate with others via text message, videos, and status update, it was selected to be an important learning channel outside the class.

Component #6: Learning Content

In holistic perspective, mind, and body plays an interdependent role to the overall state of well-being of the people (Allison, 1999). What's more, the result of the in-depth interview showed that simultaneous learning of physical health and mental health knowledge is advisable.

Therefore, learning content under ILC contains two vital parts. The first part of the content focuses on physical wellness. They are Holistic health & Daily Healthcare, Medicinal Plants in daily life, Dhatu (body elements) for Health. And the second part focuses on mental wellness which is Arm Swing Exercise (ASE). Arm Swing Exercise is considered as an exercise which is good for physical and mental health as it induces you to mediate yourself during a practice session.

How ILC works



Figure 2: ILC Process

ILC simply has four main parts. All learners are necessary to completely participate in all parts. Thus, this section answering the 3rd research question on the function of ILC.

Part I: Orientation

This is the first stage, which contains three activities; overall course introduction and requirements, official course registration, and standard health check and Dhatu check, was done in a face-to-face environment. Standard health check and Dhatu check were conducted by certified health experts. And personal health information was confidentially recorded by IFARM and would be used in providing proper recommendation if any learner has personal question during a learning session. This ensures that recommendations best fit with each individual health.

Part II: Pre-test

To evaluate learner's comprehension on holistic healthcare prior to learning, self-holistic health comprehension appraisal was conducted via online. In terms of the content validity of the appraisal, three experts, in areas of holistic health and / or Thai traditional physician, were asked to view the items in the appraisal to ensure the congruence and appropriateness of each item with what it evaluates and correctness of the use of language. Index of Item Objective Congruence (IOC) was used to qualify the content validity of the appraisal. The appraisal has totally 25 items. The scores of each item can be 0-4 scores. Therefore, the full score of this appraisal is 100 scores. The appraisal was designed to measure the level of holistic health comprehension of learners before entering the learning session.

Part III: Learning

Once pre-test was finished. Learning session immediately commenced. ILC was comprised of eight sessions during one-month learning duration, covering four holistic health principles. Two-mode of online learning which was adopted in the ILC are traditional eLearning and online social learning. Eight learning sessions were professionally designed to run on LMS while discussion, game, Q&A and so on were executed via the network of social media webs, mainly on Facebook (closed group) and Line. Extended learning outside the class was elaborately designed to help encourage collaborative learning between instructors and learners and between learners and learners. Also, before commencing each learning session, all learners were two times notified via an instant message system of Facebook and Line. This is to ensure that all learners proactively participate in the learning sessions.

Part IV: Post-Test

This is the final stage of ILC. Once the learning session was finished, the same self-holistic health comprehension appraisal was conducted to compare how the comprehension and how a learner's every choice towards health were different from the first appraisal.

Conclusion

The developed ILC should be a prototype as it is disrupting the idea that traditional eLearning or 100% online learning is the approach that best fits for all dimensions of health learning. ILC is beyond disruptive eLearning. ILC was strategically designed and developed to overcome the drawback of eLearning on healthcare learning. When it is completely implemented, it is regarded as one of the solutions which help increase self-medicated holistic health of the people. As a result, an implementation of ILC will reduce the rate of ailment and premature death in the people in Thailand. Each element of ILC is so significant and need to be studied more deeply as it can be a big contribution to society.

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