

An Integrated Learning Process Model for Enhancing Innovation Creative Systematic Thinking and Humanized Health Care of Lecturers and Support Personnel at Sirindhorn College of Public Health, Ubon Ratchathani Province

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Abstract: This participation action research aims to develop an integrated learning process model for enhancing creative and systematic innovative thinking and the humanized care of instructors and support personnel at Sirindhorn College of Public Health in Ubon Ratchathani province by using a learning process based on research articles, After Action Review (AAR), and reflection on creative ideas using the three-basket technique as the method. The sample in this study was 640. A questionnaire was the tool used in this study and verified with a content validity from three reviewers as >0.5 . The reliability of the questionnaires was calculated as a Cronbach's alpha coefficient as 0.79. The findings indicated that the results of model development were composed of the following: (1) the principles of the model; (2) the objectives of model; (3) the procedure of model, which consisted of five steps, as follows: (A) learning to enhance a growth mindset; (B) passion for the development of creative innovation; (C) innovation development based on research studies; (D) reflections and lesson learned, and (E) knowledge management for creating innovation; (4) model evaluation; and (5) supporting factors. The results of the efficacy evaluation on the creative model for producing innovations from lecturers and support staff were at a high level overall ($M = 4.49$, $S.D. = 0.44$) while humanized health care average as a whole at highest level ($M = 4.51$, $S.D. = 0.54$). Qualitative data were analyzed using three-baskets technique was presented so that the model helped lecturers and support personnel practice more listening without any judgment. The rules of conversation were that "someone speaks, everyone should listen to the speakers deeply. If the listeners would like to be a speaker, he/she should wait times without any interrupts, and could reflect his/her ideas in a polite way with their honest. This method would help lecturers and support staff develop positive thinking in terms of enhancing student competency and becoming perfect humans, as well as supporting the identity of service-mindedness with humanized care.

Keywords: Integrated Learning Process Model, Systematic Innovative Thinking, Humanized Health Care

Introduction

According to the Constitution of the Kingdom of Thailand, B.E. 2017, Chapter Four, Duties of the Thai People, Section 54, the government must provide education for everyone and promote lifelong learning (<https://so06.tci-thaijo.org/index>). Additionally, the National Education Plan (2017-2036) also focuses on lifelong learning and the philosophy of the sufficiency economy. In addition, changes in the 21st century world with the goal of access to education (Access), equality (Equity), quality (Quality), efficiency (Efficiency), and changes in the current world (Relevancy) ([http://plan.bru.ac.th/national education plan 2017-2036](http://plan.bru.ac.th/national%20education%20plan%202017-2036), Accessed on November 4, 2022). Education plays a major role for people in communities which affects the development of new programs that serve the desires of all sectors. Therefore, lecturers and staff who support the learning process are integrated teaching management and information technology. These tools are important to develop people to be complete human beings (Chanchan Panich, 2013) as well as the concept of education for change (Transformative Education) is an educational management that must take into account the development of all aspects of wisdom for the learners, not only learn in parts because the knowledge is fragmented otherwise the knowledge would be loss of equilibrium. Prawet Wasi (2014) stated that educational management to create a learning process should be carried out to examine three levels: (1) knowledge levels refer to knowing

the truth, the knowledge must be true. This gives the learners have a preliminary level of knowledge; (2) the wisdom level. This is the level at which learners can integrate or link knowledge in four areas that consisted of the following: (1) material knowledge of nature (Physical Science); (2) social knowledge (Social Science); (3) religious knowledge (Inside Science); and (4) knowledge management, all four of which are used in life; and (3) the level of consciousness. It is a level that to understand the relationship of things (Wai Naiprasert Atdohi et al., 2018). In terms of innovation skills, three main components are presented: (1) to think creatively; (2) to work creatively with others, and (3) to implement innovation (Pillar Sridaket et al., 2020). In addition, this occupation must comply with the Community Public Health Profession Act (B.E., 2013). At present, a process of decentralizing power to local government organizations (LAO) to accept the transfer of sub-district health promotion hospitals (THL) began its first round on October 1, 2022, with a total of 3,384 places, 12,037 people working as civil servants who are requesting transfers, and 9,862 employees from the Ministry of Public Health (PHS) also requesting transfers (source: www.hfocus.org.th Retrieved on October 5, 2022). The Phra Boromrajchanok Institute Ministry of Public Health is a health personnel production unit with a college of public health and nursing colleges spread across all regions of the country, an important mechanism for holistic student development by providing knowledge and competence in professional practice and to develop service-mindedness with a human heart, along with developing the morality of teachers on morality and ethics. The Praboromrajchanok Institute aims to create a service-minded identity with a human heart in the form of a network development in order to achieve the characteristics of service-mindedness, analytical thinking, and participation. (Participation) or SAP (Prarajjanok Institute, 2017). The development of educational management quality is based on the principle of participatory development of staff from all departments, based on the philosophy of a sufficiency economy, namely understanding, reaching out and development by creating trust. Making a commitment to develop the quality of education management with full force, knowledge and competence consistent with the social context must drive innovation, “One College, One Community” (Suankuan Hanpattanachaikun et al., 2014) in conjunction with the development of professional learning communities. In addition, the concept of a learning community, according to Sergiovanni (Sergiovanni's learning community) used in learning (Learning), being professional (Professional), with the academic friendliness of teachers and administrators committed to networking commitments: “Mental service with human heart under the virtual family system”. The Ministry of Public Health adhered to the social value service above self and at the same time investigated the factors should be promoted to help the learning community develop an ethic of caring that deeply understands the minds of other people (Wichai Wongyai and Marut Pattaphol, 2019; Lashley, 2001., Marzano Research Laboratory, 2012., Makaraphan Jutharosok Lamphao Upakarnkul, Watcharee Amornrojvorawut, Sukjai Charoensuk and Ploenta Prombuasri, 2017). The work of research and curriculum development and teaching continuously for more than a decade has developed service-mindedness with a human heart both in educational institutions and service centers leading to a more complete humanity (Makaraphan Jutharosok, 2023). Sirindhorn College of Public Health in Ubon Ratchathani province under the authority of the Faculty of Public Health and Allied Health Sciences and the Phra Boromrajchanok Institute Ministry of Public Health provided teaching at the high vocational diploma (Diploma) level (1996-2011). In 2012, all seven Sirindhorn Colleges of Public Health have made a Memorandum of Understanding for Academic Cooperation (MOU) with the Faculty of Public Health at Burapha University that opened for teaching and learning at the Bachelor's degree level and consisted of two courses, namely, the Bachelor of Public Health Program,

the Community Public Health Program, the Bachelor of Public Health Program and Department of Public Health of Dentistry by teaching and learning for students to have the knowledge and ability according to professional standards that aim to serve people according to the intent of the establishment of the Sirindhorn College of Public Health. A research study on “The behavioral identity development model for primary care health service students of the Bachelor of Public Health Program (Community Public Health) at Sirindhorn College of Public Health in Ubon Ratchathani Province from 2018 to 2019. The conclusions from the research found issues leading to the development of the Bachelor of Public Health Program (Community Public Health) in the areas of service-mindedness with a human heart, disciplines, and inquisitiveness in the practice of community health professionals as a whole and at the highest level (Aunnop Sonthichai et al., 2018). Then the crisis of the later problems affected to the development of the quality of the education management of the college, especially the quality of the curriculum, the quality of the instructors and support staff that affect the quality of students who need to be developed systematically and urgently, both in academic terms and as complete human beings, which will eventually lead to public health care. Therefore, the research team has foreseen the importance and has conducted research on “Integrated learning process model for developing systematic thinking creativity and service mind with human hearts of teachers and personnel at Sirindhorn College of Public Health. Ubon Ratchathani Province” to develop the learning process leading to holistic thinking and views in terms of creative systematic thinking and service mindedness with a human heart. This can apply in systematic thinking and innovation for real-life situations in working as an active team (Active team learning) and to develop systematic thinking, creative innovation related to roles for the next step. The objective was to develop an integrated learning process model to enhance innovation of creative systematic thinking and humanized health care of lecturers and staff at Sirindhorn College of Public Health, Ubon Ratchathani province.

Research methodology

This study is action research that collected data by both quantitative and qualitative data and this study is divided into nine phases and nine steps, as follows: Phase One consisted of planning an integrated learning process model for enhancing creative and systematic innovative thinking and humanized care of instructors and personnel at Sirindhorn College of Public Health in Ubon Ratchathani province. This phase is separated into two steps. Step One, studying problems by extracting lessons from the research report titled “A behavioral identity development model for primary care health service students of the Bachelor of Public Health program in Community Public Health at Sirindhorn College of Public Health, Ubon Ratchathani province, 2018-2019” by the Board of Directors of the college. Step Two, analyzing the missing parts and improving them before extending the results to the department of Dental Public Health in the seminar of the Department of Community Public Health by an academic group. The obtained information was analyzed in terms of content (content analysis) to determine guidelines for solving important problems that lead to the drafting of the model development guidelines. In phase two, there were two steps, consisting of Step Three, drafting the model and training lecturers and staff by writing a manual. Step Four, checking the quality and the way to create feasible innovations by qualified experts. Phase Three: Trialing training and use the model. There were two steps, consisting of Step Five, requesting for budget for training teachers and supporting personnel in developing various learning techniques. A sample of 30 people, specific teachers and support staff. Step

Six, taking lessons and evaluating the model. The use of traffic ping pong technique in the seven colors of life, both in the group of 82 fourth-year students, and outside Ban Sang Mek People's College in the Nong Hang subdistrict in Sisaket province, with a total of 529 people and experts. Phase Four evaluated the results of model development and improvement. Step Seven summarized the results by online experts and visits to strengthen local power and extracting student learning results. In Phase Five, there were two steps, consisting of Step Eight, revising and Step Nine, dissemination to colleges in the Faculty of Public Health and Allied Sciences at the Phra Boromrajchanok Institute. This research was approved by the Human Ethics Committee SCPHUB No. 1002/2565 on January 3, 2022, at Sirindhorn College of Public Health in Ubon Ratchathani province. The research was conducted between January and November 2022.

Research results

The findings of this study on integrated learning process and model development for creating systematic thinking in terms of innovation and service-mindedness among lecturers and staff working at the College of Public Health in Ubon Ratchathani province. This model was composed of the following: (1) the principles of the model; (2) the objectives of the model; (3) the procedure of the model; which consisted of the following five steps: (1) learning to enhance a growth mindset; (2) passion for the development for creative innovation; (3) innovation development based on research studies; (4) reflections and the lessons learned; and (5) knowledge management for creating innovation; (6) model evaluation; and (7) supporting factors. The details were described as follows:

A) Model principles

An integrated learning process for creating systematic thinking in an innovation and service-mindedness among both lecturers and staff based on the research “A model for the development of identity behavior in primary health care services of students in the Bachelor of Public Health program (Community Public Health), Sirindhorn College of Public Health, Ubon Ratchathani Province in 2018-2019” to integrate into a learning process with coaching to develop the growth mindset of students and to build up their passion for innovative creation and support a systematic thinking process, authentic learning, reflection, lessons learned that lead to deep learning and exchanging knowledge for an innovation.

B) Objectives of model

The objective of the model was to enhance the creative skills of lecturers and support personnel in an innovation area.

C) Procedures of model

(1) Learning to improve the growth of mindsets; a forum to exchange knowledge and experience in creating innovations was set and the goal was to stimulate the growth mindsets of lecturers and supporting the officers created for innovation.

(2) Building passion for creating innovations; lecturers and support officers were encouraged for the value of their work that were related to stakeholders. It affected the quality of students, creativity, imagination and innovation.

(3) Creating innovation based on research; this is an innovative space where teacher and officers work on creating innovation with the problems and needs of the

organizations in the context of coaching. There is promotion and support for the implementation of innovation.

(4) Reflective thinking and lessons learned; this is the extraction of in-depth knowledge from creative innovation practices. That is, it is beneficial for people to bring innovation to improve or conduct research on innovations in accordance with content.

(5) Knowledge exchange for innovation; acquiring knowledge from reflection and lessons learned and to expand the results by disseminating them at Sirindhorn College of Public Health, and colleges under the authority of the Faculty of Public Health and Allied Health Sciences, Phra Boromrajchanok Institute and other organizations as well as bringing suggestions gained from shared innovations to be of higher quality.

D) Model evaluations

The creative skills of lecturers and support officers were evaluated in terms of the value of innovation and the assessment of the growth mindset of innovation creation.

E) Supporting factors

(1) Expert coaches from external organizations to suggest and consult.

(2) Lecturers and support officers supported by an administrator coach for creating innovation.

The results of the efficacy evaluation on the learning process model for thinking systems with creative innovation and the service-mindedness of teachers and workers in College of Public Health in Ubon Ratchathani province. The results of the efficacy evaluation on the project of integrated learning process development for creating innovation and service-mindedness with a human heart among 29 instructors and support staff. An average of learning process skills “Creative system thinking model with three-basket technique” in policy organizational management, the coaching process to develop the potential of learners bound to the learning process, and the coaching process to make learners enthusiastic in four dimensions was at a high level ($M = 4.49$, $S.D. = 0.44$), as shown in Tables 1 and 2.

Table 1 An average and a standard deviation of learning process skills “Creative system thinking model with three-basket technique” in policy organizational management, the coaching process to develop the potential of learners bound to the learning process, and the coaching process to make learners enthusiastic ($n=29$)

Factor	M	S.D.	Level
1. Policy	4.36	0.48	high
2. Engage	4.55	0.48	highest
3. Empower	4.53	0.46	highest
4. Enliven	4.54	0.48	highest
Total	4.49	0.44	high

The samples indicated that coaching skills, in three components, were at high level. ($M = 4.49$, $S.D. = 0.46$) as shown as table 2.

Table 2 Average and standard deviation of coaching skills (n=29)

	Coaching skills	M	S.D.	Level
1.	Growth Mindset	4.56	0.46	Highest
2.	Creating innovation	4.51	0.51	Highest
3.	Questioning	4.39	0.47	High
	Total	4.49	0.46	High

The findings demonstrated a relationship between the factors of policy and the coaching process had a positive correlation with all factors; the creative systematic thinking coaching of health workers had a statistical significance of .05, with a correlation between 0.5 to 0.9, as indicated in Table 3.

Table 3 Correlation among learning process skills “Creative system thinking model with three-basket technique” in policy organizational management, coaching process to to develop the potential of learners bound to the learning process, and the coaching process to make learners enthusiastic (n=29)

Factor	R		
	Learning Skill to Growth Mindset	Learning skill to innovation	Reflective thinking to a question
1. Policy	.628**	.772**	.688**
2. Engage	.901**	.704**	.614**
3. Empower	.884**	.702**	.583**
4. Enliven	.807**	.694**	.601**

*p<0.5, **p<0.1

The lesson learning process of a development project on innovative and systematic thinking and the service-mindedness of teachers and officers at Sirindhorn College of Public Health Ubon had the following operational objectives: (1) to learn and understand holistic views or systematic thinking and service-mindedness for participants; (2) applying a systematic thinking process to create innovation; (3) training based on active team learning; and (4) creating innovation regarding to functional role with reflection using the three baskets technique. The result was that reflection by a three baskets technique model helped students to learn, improve their skills and to gain experiences about attitudes for the identity of service-mindedness.

The results of the lessons learned at Sirindhorn College of Public Health, Ubon Ratchathani province on a transitional period through the integration of systematic learning that the executive committee gives priority. It was used a simultaneously with the development of human resources to become a perfect human. (“Good” means service-mindedness, “Smart” means synthetic critical thinking skills systematically, creatively, innovatively and “Happy” means exchanging learning with aesthetic conversation). The respect of humanity, which the following time must reflect a concept that indicates “the way” of thinking such as teachers, officers and students by writing, compiling what work needs to be done, using PDCR 1 cycle according to the learning process model integrated with the research.

The impact on students on the learning community towards the multidisciplinary, with service-mindedness and with a human heart. The opinions of students, on the roles of instructors in the Bachelor of Public Health program in Community Public Health Program

(B.PH in CPH) and expanding to a Bachelor of Public Health program in Dental Public Health (B.PH in DPH) according to the role of coaching on service-mindedness with a human heart. Overall, both courses were at a high level, as shown in Table 4.

Table 4 Average of opinions of students towards learning communities to multidisciplinary based on service-mindedness with a human heart (N=82)

Factors	B.PH in CPH (43)			B.PH in DPH (39)		
	M	S.D	Level	M	S.D	Level
1. Provide friendly service with a gentle voice and a smiling face. Talk eye-to-eye with the service recipient.	4.62	0.61	Highest	4.66	0.57	Highest
2. Provide assistance to service recipients with love and kindness, giving service recipients an opportunity to tell their stories. Express your feelings and grievances.	4.60	0.58	Highest	4.74	0.55	Highest
3. Pay attention, follow up, provide information, explain and inquire about symptoms and feelings of the service recipients after every health service	4.41	0.62	High	4.69	0.46	Highest
4. Respond to physical, mental, emotional, emotional, and caring changes. Help service recipients in accordance with real problems and needs.	4.39	0.65	High	4.51	0.68	Highest
5. Summary of multidisciplinary learning with service-mindedness with a human heart Total \bar{x} =4.51, SD=0.54	4.51	0.61	Highest	4.51	0.55	Highest

The impact on communities.

Teachers and fourth-year students in the Bachelor of Public Health Program in Community Public Health and Dental Public Health brought the learning process from the role of coaches, teachers and staff to the community according to the policy build a healthy community with PBRI Model: 1 College, 1 Community at Ban Sang Mek, Nong Hang Sub-district, Benjalak District, Sisaket Province. It was found that the college has taken the health check results of 529 people, aged 35 years and over and the results were interpreted with the seven-color, life, traffic and ping-pong techniques. In addition, an application in a mobile phone was applied that allows the aforementioned citizens to know their health status and can change their behavior and drive self-care through the three-basket technique as follows:

1. In terms of health, classified with Ping-Pong, traffic, life, seven colors, etc. how does everyone in the community feel about the prevention and control of chronic non-

communicable diseases? It included no patients with diabetes/hypertension and how to reduce new patients to a minimum.

2. Community expectations or community learning on the prevention and the control of chronic non-communicable diseases included no patients with diabetes/hypertension and how to reduce new patients to a minimum. If there are patients with diabetes/high blood pressure, patients who need continuous care until they get better and need to change the color down, how should they build morale?

3. How does the community take care of new patients with various options, not only taking medicine, or in case of a patient with kidney problems? The hospital recommended one patient to dialysis and the community did activities 3 Or and 3 L activities together by setting a sound system and a place for activities and measuring the salt levels of food, setting up an herb garden, organic vegetables, providing knowledge of healthy food, self-managing anxiety, reducing the consumption of alcohol, soft drinks, energy drinks, etc.

To summarize the results of the implementation of the learning process model, systematic thinking, creative innovation and service-mindedness and a human heart among instructors and staff at Sirindhorn College of Public Health in Ubon Ratchathani province. This research represented the model developed with steps from Plan → Do → Check → Reflect for a cycle. The cycle is a process to develop the learning skills of the students that use active learning to develop the coaching roles of lecturers, support personnel from Sirindhorn College of Public Health in Ubon Ratchathani province. It is considered an essential and important skill for the learning process and a good learning process, according to the aforementioned model. This may help in the following ways: (1) to empower ideas; (2) to enhance intelligence; (3) to develop innovations; and (4) to reflect on thinking and sharing, which is a learning process that leads to creative systematic thinking → coaching for talent development → participatory development based on space → innovative team learning got a community of Ban Sang Mek Nong Hang subdistrict as a model for extending the results to all sub-districts of Benjalak district in Sisaket province.

Discussion

The integrated learning process model for enhancing creative and systematic innovative thinking and service-mindedness with humanized health care among lecturers and support staff at Sirindhorn College of Public Health in Ubon Ratchathani province was validated by experts. The learning process changed growth mindsets and build passions up for learning community. The leaders joined as learners and supported others as an administrator/coach. This participation helped and supported teams in every phase of a learning plan. Learning as a team followed a leading role model helped to conduct research with a team. In addition, the evaluation of the progress of integrated learning processes about improving better growth mindset, had a statistically significant difference.

The learning process skills “creative systematic thinking process using three-basket technique and coaching process factors to develop a potential of teachers and support personnel to engage with the learning process (Engage). The coaching process factors for the development of potential learners to enhance their learning power (Empower). It was at the highest level. These findings were consistent with coaching study that coaching affected an organization's educational management changes especially educational institutions. There are three major contributions from executives to change: (1) learning change; (2) curriculum change; and (3) management change by setting goals as a team network. (Makaraphan Jutarasok, Watcharee Amornrotworawut, Wilaiwan Wattananont, Benjaporn Tiphayaplakul

and Anistha Jutarasok, 2019; Wichai Wongyai and Marut Pattanaphol, 2019). The coaching process developed the potential of teachers and support staff. The developed model consisted of model principles, objectives, and actions, with five steps: (1) a learning process to develop and transform thinking into a better growth mindset; (2) creating a passion in conducting innovation; (3) doing research-based innovation; (4) reflecting and lessons learned; and (5) exchanging knowledge on innovation and evaluation components. It was the community model that used a concept of community health professional learning to change growth mindsets. The findings on coaching for developing support for the potential of officers are similar to research on an integrated educational management model to enhance the innovation skills of instructors and supporting personnel at Sirindhorn College of Public Health, Khon Kaen (Saowalak Sidaket et.al, 2020) established that coaching skills were policy-based organizational management (Policy) that had a positive correlation with all factors. In addition, the findings were also similar to a study of Makarapan Jutharasok et. al (2022). This data was conducted by the lessons learned from the Critical Leadership of Conductors in the development of the learning process and the findings showed a relationship with learning process skills of the creative systematic thinking process with the three-basket technique.

Impact for the community

The teachers and fourth-year students in the Bachelor of Public Health Program in Community Public Health and Dental Public Health brought the learning process from the role of coaches of teachers and of college staff to the community, according to the policy of building a healthy community with the PBRI Model: one college, one community at Ban Sang Mek in the Nong Hang sub-district of the Benjalak district in Sisaket province. It was found that the college has taken the health checkup for 529 people, aged 35 years and over and interpreted the results with the seven-color life traffic ping pong technique, as well as a mobile phone application. The application allows the aforementioned citizens to know their health status. After that, they can plan to change their behavior and drive their own health care with the three-basket technique, is similar to the study by Prasert. Attahi et al. (2018) studied participatory education management to enhance a service-minded identity with a human heart at Sirindhorn College of Public Health in Chonburi Province, an experimental pilot study of an academic service model by creating a learning process for the elderly in Ban Suan municipality in Chonburi province.

There should be research to expand the innovation of a Simulated Family System, covering the integration of all courses and leading to Sirindhorn College of Public Health to create innovation (Passion-Based Learning) in order to build a strong Thai community.

Conclusion

The combined quantitative and qualitative analysis showed a relationship between the integrated learning process and the performances of teachers as a creative and systematic thinking process, as well as providing coaching to the support staff, especially their opinions on policy at a high level. It was an important to change management and to use a coaching system to create a caring learning community like a family of the sample group in this research.

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