

AN APPLICATION OF MINDFULNESS AND CRITICAL REFLECTION ON TRANSFORMATIVE LEARNING IN NURSING EDUCATION¹

Yongyuth Kaewtem, Ph.D.²

Nutthaporn Panchakhan, Ph.D.

Thaworn Lorga Ph.D.

Boromrajonani College of Nursing Nakhon Lampang, Thailand

Abstract

21st century learning emphasizes on human thought and analysis to enhance the inspiration of learners to solve problems, and to reflect critically in various situations with self-awareness and mindfulness. Mindfulness is derived from the Buddhist practice and is fundamentally concerned with the development of present moment awareness. The process of critical self-reflection which is seen in exemplary depends on the presence of mindfulness. The development of nursing education model in the 21st century learning focuses on encouraging learners to learn to become self-aware, self-regulated mindfulness and critical reflection.

The instructor applied the concept of mindfulness and critical reflection to develop the transformative learning in nursing education: 1)Emphasis on teaching to develop mindfulness such as: encourage meditation (breathe deeply) in daily routine, paying attention in class, increasing intentional awareness, focusing on the present moment and non-judgmentally. 2)Question method with communicative didactic dialogues to stimulate their critical reflection 3)The application of different teaching methods to stimulate critical reflection processes includes: Coaching & Mentoring, Role playing, Constructive Teaching & Learning, Story-telling, Palliative Care Learning and Project Based Learning. Finally, the literature review found that, mindfulness was linked to critical reflection and triggered transformative learning, to cultivate nursing capability of nursing students, leading to the creation of their own learning, and affect the development of quality healthcare services in the future.

Keywords: *Mindfulness, Critical Reflection, Transformative Learning, Nursing Education*

¹ Financial support for this research is provided by Boromarajonani College of Nursing, Nakhon Lampang, Ministry of Public Health, THAILAND.

² Correspondence concerning this article should be addressed to Yongyuth Kaewtem at email: thun716@gmail.com or yongyuth.k@mail.bcnlp.ac.th

Introduction

Education is a tool in improving the quality of human resources in economic and social development. Educational management should be integrated creatively to meet the needs of a society that is about to enter the digital world, focusing on innovation and higher competitiveness (Kraiyoed Pattarawat, 2016). The educational system should focus on learners with a variety of intellectual and communication skills and encourage the practice of mindfulness for the learners. Both self-awareness and self-regulation of mindfulness are important as the basis for encouraging students to solve the problem creatively and critically, which is then the basis for critical reflection.

21st Century Education must be taught to develop the skills necessary for the learner, these include critical thinking skills and problem solving skills with self-awareness and self-regulation of mindfulness. The goal is the development of all learners, especially in the field of multiple-intelligences (Panich Vicharn, 2015). In addition, the study regarding the learning problems of nursing students found that nursing students lack skills such as analytical thinking, troubleshooting self-regulation, commitment, creativity, and critical reflection (Boromrajonani College of Nursing, Nakhon Lampang, 2015), it is necessary to adjust the self-learning paradigm through mindful practice which encourages self-awareness and self-control of mindfulness. Using different teaching methods to stimulate critical reflection will enable the learners to transit knowledge from theory to practice in various situations and as a learner with the knowledge of transformative learning. (Mahachulalongkornrajavidyalaya University, 1996)

Professional nursing, it is necessary to know the transformative learning in social conditions know the changing behavior of a person's health as well as the increasing expectations of the patients. Determine the efficiency and effectiveness of the task, including independent thinking and love to find new knowledge. (Ong-on Prajankett, 2014). Therefore, in the 21st century there is the need to produce skilled nursing graduates with a passion for coordination to enter the health service system and able to cooperate with a multidisciplinary team. The nursing educational institutions should also adjust the paradigm of the curriculum. Hence, as the learning process adjust, encourage learners to be able to learn transformative learning by starting with knowing and understanding themselves, stimulate critical thinking and reflection, and to create a new creative framework which can lead the transition in the healthcare system in the future.

Purpose

To present the application of mindfulness and critical reflection on transformational learning in nursing education

Literature Review

Mindfulness

Mindfulness is derived from the Buddhist practice and is fundamentally concerned with the development of present moment awareness. It is a flexible state of conscious awareness characterized by being engaged in the present moment noticing new things, novelty and being sensitive to context and perspective as it is closely linked to reflection-in-action. This practice is

also said to stem from a philosophical-religious tradition where the underlying philosophy is pragmatic. It is based on the interdependence of action, cognition, memory and emotion (Langer, 2009). In addition Epstein (2007) also defines mindfulness as a quality of a person that does not place boundaries between cognitive, technical, emotional and spiritual aspects of practice. The goals of mindful practice are to become more aware of one's own mental processes, listen more attentively, become flexible, and recognize bias and judgments, and thereby act with principles and compassion.

As mentioned, mindfulness is an essential part of Buddhism and promotes an attentive awareness of the reality of things here and now. It is one of many translations of the word "sati". Others include: awareness, inspection, recollection or retention. Mindfulness is the center and key in the process of Vipassana meditation. It is both the goal of this meditation and the means to that end. One can reach mindfulness by being ever more mindful. Mindfulness training increases activity in the left prefrontal cortex—a predictor of happiness and well-being. And it boosts the immune response, helping to defend against illness (Davison&Kabat-Zinn, 2003). Transactional analysis connects its concept of autonomy with relational script-free awareness of the way of making contact with self and other. A high level of awareness shows oneself in being aware of what is going on, as and when it is happening. Based on Buddhist meditation and its application in medicine and clinical psychology, mindfulness is obviously enjoying a growing popularity as a practice for daily life. It is increasingly seen as a mode of being which can be practiced anywhere, including the workplace. Mindfulness meditation involves using one's senses to help focus one's attention on the present. It focuses on the intentional, accepting and non-judgmental attention to one's emotions, thoughts and sensations occurring in the here and now.

Mindful practice is a logical extension of reflective practice. When people are mindful, they are able to engage in critical self-reflection. Critical reflection on experience certainly lead to the uncovering or paradigmatic, structuring assumptions. For something to count as an example of critical reflection, the persons concerned must engage in some sort of power analysis of the situation or context in which the learning is happening. (Brookfield, 2000). Critical self-reflection depends on the ability to monitor one's own progress also referred to as meta-cognition or meta-processing (Mezirow, 2000).The process of meta-processing begins with intrapersonal self-awareness. This insight into self allows the person to see themselves as they are seen by others and helps establish satisfactory interpersonal relationships. In turn, this self-awareness helps the person transcend and see connections across all areas of practice (e.g., technical, cognitive, emotional, spiritual). Mindfulness allows the person to "welcome uncertainty" and see difficult or problem as areas for creative problem solving versus unsolvable problems.

Mindfulness also facilitates "connected knowing" as knowledge is not seen independently but in relationship to the one observing and using that knowledge. Tacit knowledge, that knowledge that is learned through observation and critical reflection on practice is another source of evidence for clinical judgment and decision making. The object of mindfulness applies to any and all domains of knowledge whether explicit or tacit. (Demick, 2000)

Critical Reflection

Critical reflection is a reasoning process to make meaning of an experience. Critical reflection is descriptive, analytical, and critical, and can be articulated in a number of ways such as in written form, orally, or as an artistic expression. In short, this process adds depth and breadth to an experience and builds connections between course content and the experience. Often, a reflection activity is guided by a set of written prompts. A best practice for critical reflection is that students to respond to prompts before, during, and after their experience; therefore, the prompts should be adjusted to match the timing of the reflection. Critical reflection can be integrated into any type of experiential learning activity, inside or outside the classroom. Critical reflection should be carefully designed by the instructor to generate and document student learning before, during, and after the experience. There are three types of reflection: 1) Content Reflection - Reflect what we perceive, think, and do. What is the answer to the question? ; 2) Process Reflection - Reflect on what we perceive, feel, think and do? How is the answer? ; and 3) Premise Reflection - Reflect on what to do? Did we perceive, think, and do? Is the answer? Give a serious reflection (Panich Vicharn., 2015).

For critical thinking, we must focus on accepting and understanding the various (inclusive) view. Learning is a matter of relativity between what you want to learn with yourself. The reflective learning means and considers the elements that support and block being reflective. Reflection is much more than a cognitive or abstract process, it involves emotions, intuitions, sensations, and bodily experiences that resonate with the heart as well as the head. Experiential learning involves using reflection as a method of learning. (Carroll, 2009). Reflection and critical reflective learning involves supervisees in honest consideration and investigation of their work (Mezirow,J., 2000). Reflection is an 'internal' activity. Reflection is a process of examination, inquiry, and self-interrogation where in the following questions are asked: Why did this happen? ; Why did I do that? ; Why did that person respond in that way? ; and Why do I keep getting into these situations?. The question "Why do I reflect this way?" can also be included. This process is a way of making sense of, and giving meaning to, events and experiences. It gives attention and focus to what we already know in order to achieve further insights that lead to further knowledge. It is a meaning-making facility that helps in understanding from a number of perspectives. Widening reflectivity means widening the meaning-making frameworks. Reflection is not just a rational event, it is an emotional experience as well (Moore, 2009). Therefore, it requires linking existing knowledge to an analysis of the relationship between current experience and future action

Transformative Learning in Nursing Education

Transformative learning theory, the process of "perspective transformation" has three dimensions: 1. *Psychological* which is the changes in understanding of the self; 2. *Convictional*, the revision of belief systems; and 3. *Behavioral*, the changes in lifestyle. Transformative learning is the expansion of consciousness through the transformation of basic worldview and specific capacities of the self. It is facilitated through consciously directed processes such as appreciatively accessing and receiving the symbolic contents of the unconscious and critically

analyzing underlying premises. As Elias (1997) has stated that a defining condition of being human is that we have to understand the meaning of our experience. For some, any uncritically assimilated explanation by an authority figure will suffice but in contemporary societies we must learn to make our own interpretations rather than act on the purposes, beliefs, judgments, and feelings of others. Facilitating such understandings is the cardinal goal of adult education. Transformative learning develops autonomous thinking. An important part of transformative learning is for individuals to change their frames of reference by critically reflecting on their assumptions and beliefs and consciously making and implementing plans that bring about new ways of defining their worlds. This process is fundamentally rational and analytical (Mezirow, 1997). Perspective transformation, leading to transformative learning, occurs infrequently, that it usually results from a "disorienting dilemma" which is triggered by a life crisis or major life transition-although it may also result from an accumulation of transformations in meaning schemes over a period of time. (Mezirow, 1995)

Mezirow has developed a transformative learning theory during the past two decades, and this theory has evolved into a comprehensive and complex description of how learners construe, validate, and reformulate the meaning of their experience (Cranton, 2006). For learners to change their meaning schemes (specific beliefs, attitudes, and emotional reactions), they must engage in critical reflection on their experiences, which in turn leads to a perspective transformation. The meaning schemes that make up meaning structures may change as an individual adds to or integrates ideas within an existing scheme and, in fact, this transformation of meaning schemes occurs routinely through learning. A perspective transformation leading to transformative learning, however, occurs much less frequently. Mezirow believes that this less frequent transformation usually results from a "disorienting dilemma", which is triggered by a life crisis or major life transition, although it may also result from an accumulation of transformations in meaning schemes over a period of time (Mezirow, 1995).

The perspectives mentioned by Mezirow as follows: Disorienting dilemma, Self-examination; Sense of alienation; Relating discontent to others; Explaining options of new behavior; Building confidence in new ways; Planning a course of action; Knowledge to implement plans; Experimenting with new roles; and Reintegration. Educators need to provide learners with opportunities to effectively participate in discourse that involves assessing beliefs, feelings, and values (Cranton, P., 2006). This dialogue has the goal of assessing reasons behind competing interpretations through critical examination of evidence, arguments, and alternate points of view. Learners are able to validate how and what they understand, as well as develop well-informed judgments regarding a belief. Educators can encourage critical reflection and experience with discourse through the implementation of methods including metaphor analysis, concept mapping, consciousness raising, life histories, repertory grids, and participation in social action. Teachers need education and professional development that will help them to question, challenge and experience critical discussions on school improvement. Transforming teachers so they see themselves as agents of social change can be a challenge within education.

How to apply of mindfulness in education

1) *Encourage meditation* (breathe deeply) in daily routine 5-10 seconds before starting to learn or a short mediation every morning. Meditation practice is the cornerstone of living with mindfulness which then creates space, replacing impulsive reactions with thoughtful responses. Mindfulness is cultivated for the educators to promote self-care, self-awareness, and empathy with the ultimate aim of mutually improving the educator's well-being and the quality of student care.

2) *Paying attention in class*: listening, watching or considering what naturally exists. Students would pay more attention in class if the subject the teacher is teaching is fun and interesting. It is very important to pay attention in class because it helps you improve your listening skills.

3) *Increasing intentional awareness*: Mindful awareness entails more than sensing present experience as it generates an awareness and attention to intention. These fundamental aspects of mindfulness can be seen as forms of meta-cognition that are known to involve activity in the middle prefrontal regions, including the medial prefrontal and anterior cingulate areas.

4) *Focusing on the present moment* (here and now): Focusing on your breath and experiencing the moment helps you live in the present. This process helps reduce the number of thoughts in your mind. Living in the present is the best way to stop worrying about the future. "There is no rule that you have to be doing a million things at once, don't worry about everything that has yet to happen"

5) *Non-judgmental*: being curious and objective about experience, once you begin to analyze the situation. You are creating an imaginary outcome. Treat others with kindness and compassion. Mindfulness requires being in the present without judgment. Treat others well, and focus on journey. Don't expect everyone to adopt the same perspective as you. Practicing mindfulness is a personal journey, and letting go of judgment includes not judging others for their inability to let go of their own pasts and futures.

How to apply of critical reflection in education

Question method with communicative didactic dialogues to stimulate their critical reflection: Using a question method is an important technique in seeking effective knowledge, it is a teaching strategy that produces learning which develops thinking skills, interprets reflection, and leads to an improved learning process. It also helps develop new ideas to improve thinking skills. Learners will learn from thinking to create questions and answers on their own. The question of teaching is the integration to develop thinking process and critical reflection. Good questions can develop students' thinking, reasoning, analysis, criticism, synthesis, and evaluation in order to answer the questions. For professional nursing it is a necessity. For question-based instructional techniques the following must be evident: 1) Creating an atmosphere which is friendly, honorable, and promotes positive learning based on ASA (attentive, smile, acknowledge). In addition, giving positive remarks such as good, very good or well done when the answers are correct and when not, there should be a reflection as to why the answer is

wrong. 2) Choose good open-ended questions and encourage learning. Ask the students to think for themselves while guiding students as to what knowledge is necessary to apply. 3) Use clear questioning techniques, choose a broad question, ask questions one by one and give the student time to think for at least 10 seconds or ask questions and wait for answers and avoid leading questions such as "yes, no" questions.

In addition, another question method which can be used is the Socratic Method where in the teacher encourages students to think about things. The students will study analytically to find out the correct answer and to encourage students to express, discussed and then summarized their opinions. This teaching method is suitable for students who like to use their ideas and knowledge in various things. This way of thinking will give the learner a high level of thinking and reasoning. Learners not only remember factual knowledge alone, but it can be used to solve problems, analyze and evaluate what is asked. It also helps the learner to understand the essence of the story accurately and encourages learners to find answers to the questions themselves. In nursing, instructors can ask questions in practical teaching while discussing issues with patients, teaching, and supervising students. The patient may be involved in the question and answer process which will be useful in practicing a lot.

How to transformational learning in nursing with different teaching method

1) Coaching: Coaching is a tool of transformational learning that leads to the change of the mindset and the frame of reference to interact with one another. This is a process by which the instructor is acting as a facilitator and empowers learners with knowledge, ability, thinking, and desirable attributes. It is a mechanism for enhancing and developing learners to have higher-order thinking skills. There are learning methods that can be learned, self-assessment and self-direction, to perceive by self-mindfulness, and how to frame the meaning of the world around them in that situation.

2) Mentoring: Mentoring is another strategy for transformative professional, personal, and organizational development. By creating a supportive culture, mentoring can provide the environment for transformative learning to occur. Through this experience mentoring becomes a transformative relationship in which individuals reconstruct possible selves. As a two-way process, mentoring is a learning tool for both the mentor as well as the person being mentored (Fletcher, 2007)

3) Role playing: Role playing is a way of working through a situation, a scenario, or a problem by assuming roles and practicing what to say and do in a safe setting. This kind of learning experience has several benefits and advantages when it's implemented skillfully by a good trainer or teacher. Instructors can supplement their teaching methods with role playing in any context where it seems relevant. Even rehearsals of personal situations through role playing with a trusted friend can provide beneficial learning opportunities. Let's look at some of the benefits of adding role playing to other instructional methods. The reflection may arise from their experiences and from the experience of others. There is both a written presentation, verbal narration and promote to absorb or accumulate knowledge that is not transmitted into the brain

or conscience. Role playing is one way to bring that hidden knowledge to the outside, to understand the process with intelligence and change, to emphasize the use of interpersonal techniques in the context of the role playing, and leads to change of perspective transformation. (Panich Vicham, 2015)

4) Constructive Teaching & Learning: Constructivist approach teaching methods are based on constructivist learning theory. It is based on the belief that learning occurs as learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. Learners are the makers of meaning and knowledge. Education must engage with and enlarge experience and the exploration of thinking and reflection associated with the role of educators. The characteristics of a constructivist classroom are as follows: the learners are actively involved, the environment is democratic, the activities are interactive and student-centered, and the teacher facilitates a process of learning in which students are encouraged to be responsible and autonomous. Furthermore, in the constructivist classroom, students work primarily in groups and learning and knowledge are interactive and dynamic. There is a great focus and emphasis on social and communication skills, as well as collaboration and exchange of ideas (Durmus, 2016).

5) Storytelling: Storytelling is a tool of learning through interpersonal communication and leads to transformative learning, there is a practice of good communication, both verbal and non-verbal. In the process of narration, there is a process of dialogue in parallel activities. The goal of the narrative is to enhance the student's perspective on education, changing views, create new ways of learning, story-telling with both narration and quality listening will give rise to the power of liberation, creative and inspiration of the learners. Storytelling is a tool of communicative learning.

6) Palliative Care Learning: Palliative Care Learning is a caring for the end of life. Focus on the quality of life of patients and relatives. There is a dimension of physical therapy, to reduce pain, emotional and social remedies. It is a care made by multidisciplinary team. Palliative care learning should be learned as learning through, it is learning multi-dimensionally, including self-learning, taking care through a learning experience in an atmosphere of palliative care. It will help or open up opportunities, make learning, getting to know your inner self more easily and lead to transformative learning. (Panich Vicharn, 2015)

7) Project Based Learning (PBL): it is believed that students acquire a deeper knowledge through active exploration of real-world challenges and problems. Students learn about a subject by working for an extended period of time to investigate and respond to a complex question, challenge, or problem. It is a style of active learning and inquiry-based learning. PBL contrasts with paper-based, rote memorization, or teacher-led instruction that presents established facts or portrays a smooth path to knowledge by instead posing questions, problems or scenarios. PBL integrates knowing and doing. Students learn knowledge and elements of the core curriculum, but also apply what they know to solve authentic problems and produce results that matter. PBL students take advantage of digital tools to produce high quality, collaborative products. PBL refocuses education on the student, not the curriculum - a shift mandated by the global world, which rewards intangible assets such as drive, passion, creativity, empathy, and resiliency. These cannot be taught out of a textbook, but must be activated through experience. (Markham, 2011)

The Conceptual Framework

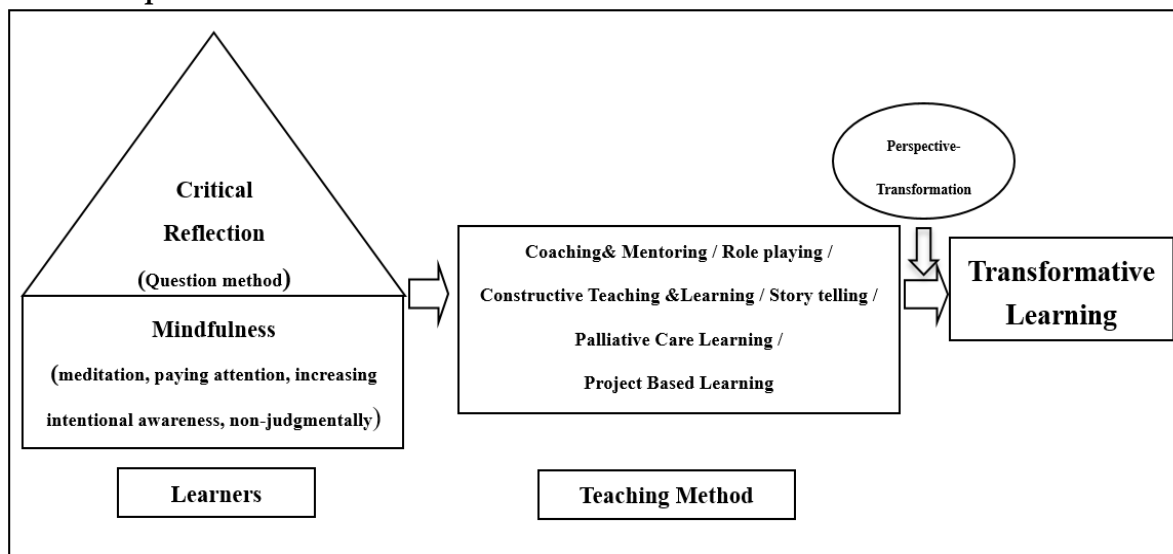


Figure 1: Conceptual framework of An Application of Mindfulness and Critical Reflection on Transformative Learning in Nursing Education

Summary and Conclusions

Learning at all levels of education requires transformative learning. Therefore, the development of nursing education model in the 21st century learning focuses on encouraging the learners to learn how to have self-awareness, self-regulation of mindfulness, and critical reflection. Finally, the literature review found that, mindfulness was linked to critical reflection and triggered transformative learning by which cultivating the nursing capability of nursing students by leading them to create their own learning in understanding the lessons truly and sustainably. Therefore, integration of theoretical knowledge into practice should be done correctly, paradigm shift or mindset change, commitment, learner's behavior towards holistic view. These factors would affect the development of quality healthcare services in the future.

References

- Brookfield, S.D. (2000). *Transformative learning as ideology critique* In J. Mezirow & Associates (Eds.), *Learning as transformation. Critical perspectives on a theory in progress*. San Francisco, CA: Jossey-Bass.
- Boromrajonani College of Nursing Nakhon Lampang. (2558). *Knowledge Management & Academic Problems of Nursing Students*. Lampang: BCNLP.
- Carroll, M. (2009). From mindless to mindful practice: on learning reflection in supervision. *Psychotherapy in Australia*. 15(4), 40-51.
- Cranton, P. (2006). *Understanding and Promoting Transformative Learning: A Guide for Educators of Adults*. (2nd ed.). San Francisco, CA: John Wiley & Sons, Inc.
- Davison, R., & Kabat-Zinn, J. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine*. 65, 564-570.
- Demick, J. (2000). Toward a mindful psychological science: theory and application. *Journal of Social Issues*. 56(1), 141-159.

- Durmus, Y. T. (2016). Effective Learning Environment Characteristics as a requirement of Constructivist Curricula: Teachers' Needs and School Principals' Views. *International Journal of Instruction*. 9(2).
- Elias, D. (1997). It's time to change our minds: An introduction to transformative learning. *Revision*. 20(1).
- Epstein, RM. (2007). *Mindful Practice Curriculum*; University of Rochester. NY: School of Medicine and Dentistry.
- Fletcher, S. (2007). *Mentoring adult learners: Realizing possible selves*. In M. Rossiter (Ed.), *Possible selves and adult learning: Perspectives and potential. New directions for adult and continuing education*. San Francisco: Jossey-Bass.
- Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. (2010). Health professionals for a new century: transforming education to strengthen health systems in an *interdependent world* *Lancet*. 376: 1923-58.
- Kegan, Robert. (2000). *What "form" transforms? A constructive-developmental approach to transformative learning*. In Mezirow & Associates *Learning as Transformation: Critical Perspectives on a Theory in Progress*. San Francisco: Jossey Bass
- Kitchenham, A. (2008). The evolution of John Mezirow's transformative learning theory. *Journal of transformative education*, 6(2): 104-123.
- Kraiyyod Pattarawat. (2016). *Thailand's Education to Thailand 4.0*. Retrieved June 3, 2016, from <http://www.thaihealth.or.th/html>.
- Langer, Ellen J. (2009). *Counter clockwise: mindful health and the power of possibility*. New York: Ballantine Books.
- Mahachulalongkornrajavidyalaya University. (1996). *Tipitaka Thai Version*. Bangkok: Mahachulalongkornrajavidyalaya University.
- Markham, T. (2011). Project Based Learning. *Teacher Librarian*, 39(2), 38-42.
- McAllister, M. et al. (2006). Solution Focused Teaching: A Transformative Approach to Teaching Nursing. *International Journal of Nursing Education Scholarship*. 3(1).
- Mezirow, J. (1995). *Transformation Theory of Adult Learning*. In: *In Defense of the Lifeworld*. New York: SUNY Press.
- Mezirow, J. (1997). Transformative Learning: Theory to Practice. *New Directions for Adult and Continuing Education*. 74, (5-12).
- Mezirow, J. (2003). Transformative learning as discourse. *Journal of transformative Education*. 1 (1): 58-63.
- Ong-on Prajankett. (2014). Transformative Learning: Nursing Education Perspective. *Journal of The Royal Thai Army Nurses*. 15(3), 179-184.
- Richard L Griffith et al. (2016). *Guided mindfulness: A Self-regulatory approach to experiential learning of complex skills*. Retrieved Sep 3, 2017, from <http://dx.doi.org/10.1080/1463922X.2016.1166404>.
- Panich Vicharn. (2015). *Enjoy learning in the 21st century*. Nonthaburi: SR Printing Mass Products.