

## CHARACTERISTICS AND IDENTITY OF GRADUATE NURSES COMPLETING A DISTANCE LEARNING PROGRAMME

### **Boontip Siritarungsri**

Sukhothai Thammathirat Open University (STOU), Thailand  
boontip.sir@stou.ac.th, boontip@gmail.com

### **Somjai Puttapitukpol**

Sukhothai Thammathirat Open University (STOU), Thailand  
somjai.putt@stou.ac.th, pusomjai@gmail.com

### **Chanpen Kaewpo**

Department of Nursing at Ongkharak Hospital, Thailand  
kaewpo09@gmail.com

### **Nongluck Onmanee**

Department of Nursing at Nakhon Pathom Hospital, Thailand  
nong9071@gmail.com

### **Phissamai Sunato**

Department of Nursing of Chaiphaphum Hospital, Thailand  
dangnoi\_m1@hotmail.com

## ABSTRACT

*The purpose of this mixed method research is to study the characteristics of nurses who undertook the Master of Nursing Science in Nursing Administration programme at Sukhothai Thammathirat Open University, Thailand and explore potential guidelines for curriculum development and instructional management. The sample comprised 268 nurses who had graduated from the programme from 2007 to 2014, their co-workers, and supervisors at 1:1 ratio. Further study involved two focus groups: (1) Group of 15 graduate respondents, and (2) group of 13 policymakers and experts who had been directly involved in curriculum development, policy making, higher education instructional management, distance education and graduate studies in nursing. The data were collected using a questionnaire covering seven characteristics and identity: (1) morality and ethics, (2) ability to use information and communication technology, (3) inquiry and lifelong learning, (4) responsibility, (5) problem-solving and critical thinking skills, (6) human relationships, and (7) knowledge and experience. Data analysis included descriptive statistics, the Kruskal Wallis Test and content analysis. The findings indicated that morality and ethics are the top-ranked characteristic identity. Hard work and high determination towards self-development in improving work performance was also ranked high. Communication using the English language was found to have the lowest ranking. The two recommendations made in this study are: (i) to enhance curriculum development by viewing nurses as self-directed learners and improve communication competency; (ii) introduce an effective instructional model for the development of successful lifelong learning skills.*

**Keywords:** Characteristics, Identity, Nursing, Curriculum, Instructional Design

## INTRODUCTION

Nursing programmes are increasingly incorporating distance learning to accommodate the increased diversity of learners and enhance the learning experience. This necessitates finding flexible methods of teaching which are responsive to student needs (Novotny & Wyatt, 2006; Sowana & Jenkins, 2013). Instructional management of distance learning are influenced by the evolution of distance learning from the correspondence education, whereby learners received their printed course content by mail. The course content usually comprised reading materials and exercises. Advancements in communications technology and the connectivity of computers and the Internet have revolutionised access to, and the interactivity of, distance education (Kentnor, 2015). According to the American Association of Colleges of Nursing (AACN, 2011), 298 out of 361 (82.5%) of Master of Science in Nursing programmes in the United States were delivered using some form of distance learning, including online learning. This percentage rose to 85.5% two years later (AACN, 2013). Australian universities have traditionally been able to supplement clinical education delivered on placement with weekly clinical teaching in a simulated environment (Philip & Wozniak, 2009).

Lowery and Spector (2014) asserted that the innovative use of technology in distance learning has changed the landscape of nursing education. They concluded that this teaching modality has contributed to an increase in the production of nurses due to increased access to education and greater flexibility. Avery, Cohen and Walker (2008) also maintained that most of the literature on distance education addresses innovative approaches in individual nursing courses or curricula. Billings, Dickerson, Greenberg, Wu and Talley (2013) highlighted that some states in the United States have specific regulations for distance education programmes which differ from the regulations for face-to-face nursing programmes. Meanwhile, a number of providers in Australia deliver pre-service and postgraduate nursing programmes leading to registration as a nurse and/or midwife using only the distance learning modality. Regulation of these programmes is the same as for traditional face-to-face delivery (Australian Nursing and Midwifery Accreditation Council, 2016).

Sowana and Jenkinsb (2013) found that all distance nursing students, including those with limited technological resources at home, managed to successfully complete the course. Results from their study demonstrated that the mean final course grade of the distance learning cohort ( $80 \pm 8.2$ ) was significantly higher than that of the hybrid cohort which studied using both the face-to-face and distance learning modalities. This was supported by Seven, Çınar, Fidancı and Akyüz in Turkey (2013) who asserted that more than 50% of their participants felt that distance learning nursing programmes were more convenient and accessible than traditional programmes. Nevertheless, undertaking distance learning can be a challenge for learners, particularly those who are nurses and shift workers. Siritarungsri (2009) revealed that the success of studying via distance education was derived not only from specific identity characteristics of individual learners but was also influenced by the support from supervisors, co-workers and families. This observation corresponds with that of Dacanay et al (2015) who found that the success of nursing students in distance learning depended on both the specific learner's internal characteristics, in particular responsibility and stress management as well as outside factors such as help from other stakeholders like families, instructors and institutions.

Sukhothai Thammathirat Open University (STOU) began offering the Master of Nursing Science in Nursing Administration (MNS-NA) programme through distance learning in 2005. Printed course materials were provided to students. The printed materials were complemented with electronic media, e-learning, webcasting and e-tutorials to ensure efficient and convenient access to resources for both domestic and international learners. To date, 340 nursing graduates have successfully completed the master's programme (STOU

Planning Division, 2016). In 2012, the Office of the Higher Education Commission (OHEC), Thailand, released the Qualification Standards for Graduate Study Level of Schools of Nursing B.E. 2555 which provided institutional guidelines delineating standardised criteria to be met (Ministry of Education's announcement, 2012). This document also described desirable competency characteristics which graduate nurses should possess, including specific identity characteristics relevant to master students. STOU held a community public hearing to define and describe the characteristics of a STOU graduate aligned with the university's philosophy, vision and mission.

## LITERATURE REVIEW

Distance education has been defined in several ways in the literature and by national committees (Allen & Seaman, 2013). For the purpose of this article, distance education in nursing refers to teaching and learning situations in which the instructors and learners are geographically separated and therefore rely on print materials or electronic devices for instructional delivery (Knebel, 2001). Teaching methods may be synchronous or asynchronous to facilitate and evaluate learning in compliance with the standards and regulations of STOU and expected learning outcomes established by the Thailand Nursing and Midwifery Council. Kanteka (2014) indicated that distance education is an important mean for imparting nursing knowledge. It allows increased access to education and more flexibility for the learner, thus advancing the education of the nursing workforce. Lowery and Spector (2014) suggested that to promote excellent learning outcomes through distance education, which will improve the quality and safety of patients, nursing boards and educators must work together. Distance education includes distance teaching (the instructor's role in the process) and distance learning (the student's role in the process) (Perraton, 1992). Distance learning is a mode of study which enhances self-directed learning (Annuar & Shaari, 2014) while self-directed learning promotes quality of life and work (Din, Haron and Rashid, 2016). Online learning, a form of distance learning in the era of technological advancement, provides opportunities for students to engage in lifelong learning without the restrictions of space and time (Gazza & Hunker, 2014). Human resources are therefore lessened accordingly in an online learning environment. Numerous international research works (Burgess & Russell, 2003, Edvardsson & Oskarsson, 2009; Tait, 2015) surveying the learning behaviour and achievements of overseas learners who graduated in distance education confirmed the positive outcomes for both learners and their organisations. Holly (2009) and Siritarungsri & Suvannasamrit (2011) indicated that the use of new technology in a distance learning system assisted nursing students in stimulating a virtual classroom. Distance education is also seen to be in line with the 21st century's era of transformative learning and transitional nursing education, empowering staff competency in response to the needs of the changing healthcare system and society.

Graduate identity refers to a successful, congruent personal learning development of students, from their identity's commencing state to a standardised, designed "graduate state" of identity that embodies the desirable competency characteristics necessary for working nurses. It affirms that a new state of graduate identity has been achieved and students are finally well-accepted. Oyserman, Elmore and Smith (2012) indicate that acceptance is measured by a graduate's ability to acquire a job and enter the workforce. The professional nursing identity refers to a social identity that is created in relation to others through interaction, learning, and practical training (Cook, Gilmer, & Bess; 2003). In distance learning approaches, students are responsible for self-directed learning which lead to lifelong learning.

This study aims to study the characteristics and identity of graduates from the Master of Nursing Science in Nursing Administration programme at STOU, Thailand, and to explore

potential guidelines for the programme's curriculum development and instructional management.

## METHODS

The research project was approved by the Ethical Review Committee for Research in Human Subjects of School of Nursing, STOU. The research was conducted using a mixed method approach, triangulation design that involved quantitative and qualitative data analysis. The population comprised 303 graduates from the academic years of 2007 to 2014, their co-workers and their supervisors.

The study consists of two phases:

*Phase 1:* The sampling for the distribution of the questionnaire consists of: (1) Graduates who completed the MNS-NA programme between the academic years of 2007 and 2014; (2) their co-workers; and (3) supervisors. Retired master's graduates were excluded.

*Phase 2:* The focus group involved: (1) Representatives of the graduates who were willing to be involved in the research; and nurses employed in a field of practice; (2) Representatives of experts who are willing to be involved in the research. The following members are excluded from the focus group: (1) graduates who were unwilling to be involved and nurses not employed in a field of practice related to the research objectives; and (2) Representatives of policymakers and experts who were unwilling to be involved in the research until it was completed.

The sample group comprised 268 persons selected through purposive sampling. They represented the aforementioned groups in Phase 1 who completed a questionnaire. A total of 15 respondents consisting of 7 representatives of master's graduates (5% selected by drawing lot), four administrators and four co-workers were selected from the sample in Phase 1. Using purposive sampling, 13 academic experts who had been in charge of curriculum development, policy and instructional management at higher education level for distance learning nursing studies and STOU distance education were included in a second focus group.

The open-ended and close-ended questionnaire for this study investigates 7 aspects and 71 sub-items of graduate characteristics and identity based on: (i) nursing study concept comprising eight desirable characteristics and identity of master's graduates taken from the Qualification Standards at Graduate Study Level of School of Nursing B.E.2555 announced by the Office of Higher Education Commission in Thailand as guidelines for higher education institutions; and (ii) six desirable characteristics of master's graduates identified by STOU. The Osgood scale was used with 11 levels from 0-10 score, with 0 referring to no show of behaviour and 10 referring to show of behaviour at the highest level. The questionnaire was verified by three experts; and content validity index was 0.95. The focus groups was designed to develop a guideline for curriculum development and instructional management of nursing graduates that meets the 21st century skill requirement.

The completed questionnaires of MNS-NA graduates, their co-workers and supervisors for data analysis were 162, 132 and 130, respectively. Mean, standard deviation and the Kruskal Wallis test were used in analysing the quantitative data, whereas content analysis was used for qualitative data.

## RESEARCH FINDINGS

Women aged between 29 and 60, with an average age of 49, formed 99.4% of the graduates who completed the survey. Almost all of them were employed in the public health sector by the Ministry of Public Health and just 4.3% worked in the private health sector. They held positions such as head nurse, charge nurse and professional nurse/ expert/ specialist expert. The main reason cited by 98.8% of them for studying via distance education at STOU was to enhance their knowledge and skills, followed by endorsement by the Office of Civil Service Commission that the STOU qualification was deemed equal to the qualifications held by graduates of other universities (70.4%). More than 50% cited other reasons such as being able to study while continuing to work and live with their families, not losing career opportunities, not needing to leave their families, having a self-study plan management in line with timeliness and the designated place and salary increase.

Graduate respondents identified their fellow graduates as the most significant supporting factors to successful graduation were master graduates (93.8%). This was followed by the instructors, family, co-workers and supervisors.

The results from the questionnaire responses from the three groups indicated that each aspect was rated at the highest level with no significant difference in mean between the three groups. Meanwhile, the Kruskal Wallis Test results in Table 1 also shows similar outcomes except for the ability to use ICT where there was a difference of 0.07 at significance level  $p < 0.05$  with the medians for the co-workers' and the supervisors' higher than the graduates' median (8.45). (IQR: Inter-quartile Range)

Table 1: Characteristics and identity of graduates

Characteristics and identity of graduates	Graduates		Co-workers		Supervisors		Chi-square	p
	Median	IQR	Median	IQR	Median	IQR		
1. Morality and ethics	8.97	0.79	8.94	1.06	8.94	0.96	2.73	256.
2. Knowledgeable and experiences	8.60	1.00	8.85	1.20	8.75	1.00	1.87	393.
3. Problem solving and critical thinking	8.47	0.95	8.83	1.25	8.60	1.07	4.22	121.
4. Responsibility	8.86	1.14	9.00	1.14	9.00	1.04	3.73	155.
5. Human Relationships	9.00	1.05	9.00	1.50	9.00	1.05	862.	650.
6. Ability in using ICT	8.45	1.00	8.77	1.25	8.64	0.93	10.06	*007.
7. Inquiry & lifelong learning	8.67	1.00	9.00	1.46	8.83	1.17	5.88	053.
Total	8.73	0.78	8.91	1.12	8.73	0.90	2.39	0.30

Table 2 shows the characteristics and identity of graduates from each aspect and each sub-item that were rated at the highest level. The results indicate that all respondents ranked the sub-items under morality and ethics the highest. The graduates indicated greater respect for human dignity and value, and felt that honesty in work performance is equality important (both mean values at 9.40). This opinion was also shared by their co-workers (mean at 9.23). Supervisors ranked the ability to balance work life as highest with mean at 9.94. Following these, all respondents ranked responsibility and human relationships at second position. The graduates felt responsible for their own continued learning and self-development and believed in teamwork (mean at 9.112 and 9.05 respectively). In addition, the graduates had the ability to update their ICT skills to ensure that they could carry out self-study. Both co-workers and supervisors are in agreement with the graduates. All three respondents ranked inquiry and lifelong at fourth place following the aforementioned

characteristics and identity. The ranking followed closely by the three remaining characteristics and identity: problem solving and critical thinking, knowledgeable and experience, and lastly the ability in using ICT. The ability in using ICT is gauged differently by all three respondents; the ranking by graduates being the lowest.

Table 2: Comparison of the highest mean of characteristics and identity of graduates individually for each aspect

Characteristics & Identity	Sub-item	M	s.d.	Perspective
1. Morality and ethics	11. Able to balance work life and sufficiency	9.94	0.94	Supervisor
	10. Honesty in work performance	9.40 9.23	0.71	Graduate Co-worker
	15. Respect for human dignity and value	9.40	0.67	Graduate
2. Knowledgeable and experiences	7. Activity initiator and participation in the workplace activity for academic development	8.81	0.99	Graduate
	1. Incorporate current knowledge into their practice	8.78	0.81	Supervisor
	3. Ability to integrate knowledge from other relevant nursing theory sciences and evidence-based practice for management application	8.75	1.12	Co-worker
3. Problem solving and critical thinking	5. Ability to offer advice to nursing practitioners, healthcare team members and the general public	8.83	1.10	Co-worker
		8.82	0.87	Graduate
		8.64	0.87	Supervisor
4. Responsibility	1. Responsibility for own continued learning and self-development	9.12	0.85	Graduate
		9.05	1.12	Co-worker
		8.90	1.10	Supervisor
5. Human relationships	3. Ability to work in teams and with other professionals/networks.	9.05	0.81	Graduate
		8.99	1.03	Co-worker
	4. Ability to work with nursing team in the role of team leader when appropriate	8.92	0.82	Supervisor
6. Ability in using ICT	9. Skill in using Thai language appropriately	8.86	0.99	Co-worker
	5. Ability to use ICT independently	8.75	0.89	Supervisor
		8.68	0.95	Graduate
7. Inquiry & lifelong learning	3. Works hard and remains steadfast in self-development at all times	8.92	1.15	Co-worker
		8.89	0.89	Supervisor
		8.85	0.87	Graduate

In the first focus group (the sessions for the two different groups were held separately), representatives from each of the two groups agreed that seven aspects of characteristics and identity of the graduates were appropriate for current and future graduates. The focus group agreed that the graduates were and would continue to be equipped to champion continuous development of human resources to achieve quality and safety care in their respective workplaces.

The content analysis of the reflections and recommendations provided by the 13 experts in the second focus group resulted in following guidelines for curriculum development and instructional management:

- (1) Ensuring the curriculum is learner-centred, adheres to nursing profession regulations, and covers the International Council for Nurses plan and global health system;
- (2) Incorporating qualities of transformative learning which focus on enhancing active student engagement and broadening educational experience;

- (3) Ensuring that the graduate identity characteristics conform with the Health Personnel Development Plan in the 21st Century produced by the National Health Professional Education Foundation; one of the five-year plan objectives focused on self-directed learning and using ICT as a tool for work and self-development with the expectation that the individuals would become lifelong learners; and
- (4) Ensuring that the distance education institute provides curriculum content through various instructional media such as printed materials, CD, DVD, electronic books, Internet offline and online, and other digital media for enhancing interaction between students and instructors and among themselves that are appropriate for each learner in the 21st century.

## DISCUSSION

All three groups, graduates, co-workers; and supervisors, indicated that the graduates are capable of making positive contributions to the professional healthcare contexts in which they work. Data analysis confirmed that the graduates possess all seven aspects of characteristics and identity of graduate nurses, with the highest mean scores in each aspect. In addition, the respondents elaborated and reiterated each aspect and sub-item in the open-ended questions, validating the quantitative findings. Three considerations are being reflected, the learners being graduates from: (1) the Master of Nursing Science programme; (2) a distance education programme; and (3) the 21st century.

The first identity characteristic of the masters' graduates in nursing science is being moral and ethical, which was given the highest significance. Nurses are responsible for patients and their families, therefore they are required to adhere to ethical and professional codes of conduct. The Thailand Nursing and Midwifery Council (TNMC), which is the regulatory authority of nursing and midwifery professionals, provides a code of professional conduct. According to this code, a professional nurse has a high sense of responsibility, is dependable, possesses practical knowledge and skills, and upholds morality and ethics. These are the guidelines for maintaining patient safety and the safety of society as a whole (Thailand Nursing and Midwifery Council, B.E.2557; 2014). These are also consistent with the Thailand Qualifications Framework for Higher Education (TQ TQF), which also identified morality and ethics as the top learning outcomes. Research inquiring sub-individual items under the identity aspect of morality and ethics stipulates that carrying out duties with honesty is most important. According to Aphananthikul, Praphaiphanch, Senadisai and Orathai (2014), nurse administrators listed honesty as the most important part of professional ethics for nurses. Moreover, TNMC has also included ethics in the TNMC Strategic Plan B.E.2557-2561, emphasising the significance of the code of professional conduct for nurse executives. This includes Code of Nursing Professional Conduct: Role of Professional Nurse, Code of Professional Conduct Board and Nurse Administrator as per the TNC's ongoing strategic plan during B.E.2557-2561.

The MNS-NA graduates were identified as inquisitive lifelong learners who are responsible with strong determination and perseverance. The three groups agreed that the graduates are responsible for their own learning and study plan. They acknowledged that their study plan considered work and family commitments. This finding was supported by Niyomwipak (2012). Personal learning experiences enabled the graduates to become active lifelong learners (Srisa-an 1986; Siritarungsri, 2009; Moore, & Kearsley, 1996; Jahng, Krug, & Zhang, 2007; Shachar, & Neumann, 2010; Ledward & Hirata, 2011; Tait, 2015). The STOU distance learning system for MNS-NA uses computer technology and the Internet as supplementary media to facilitate their studies. The knowledge and skills developed contributed to their professional identity and the capabilities. Ability to communicate in English was not ranked high, similar to the findings about Thai people's English language

proficiency by Benja & Keawpasom, 2009; Tangpanithandee, et al, 2013; Siritarungsri, Tangkittithaworn, & Chotpitayasunondh, 2015. This was also asserted by Siritarungsri (2016) who found that the nurses involved in her study had limited English skills. The language barrier limits opportunities for them to work abroad and adversely impacts their career development. In addition, it reduces their capacity to contribute to and access information such as researches and reports detailing nursing and health innovations that are predominantly published in English. The graduates ranked problem-solving and critical thinking skills as high as well. A number of respondents from each of the three groups stated that the nurses at the administrator's level must be keen to solve problems using critical thinking. This would enable them to consider broader perspectives and systematically analyse problems. Administrative work is tiring so it would be helpful if someone equipped with related knowledge could share the burden. The respondents added that administrators must sincerely support and offer opportunities to graduate nurses to progress. Nursing students who undertake distance learning while simultaneously working often need to ask their colleagues to help exchange shifts so that they could study. Moreover, nurses must take care of patients around the clock, so their role as a coordinator in a healthcare team requires building relationships with other healthcare professionals. This is supported by Block, as cited in Dubrin, (2013, p.4), and Siritarungsri (2016) who asserted that good human relations is considered as an important characteristic of leadership skills. Data from this study revealed that over 90% of the graduates stated that studying with STOU enabled them to expand their professional networks. Building and sustaining networks requires individuals to have well-developed human relationship skills (Holly, 2009).

Self-directed learning remains a goal learning style with increasing ICT skills to efficiently enhance nurses' studies in the 21st century towards lifelong learning (Haynor & Wells, 1998; Garrison, 2000; Partnership for 21st Century Skills (P21), 2007). Identification of overall administrative nursing competency at different nursing administrative levels such as organisational, middle and beginning levels, should be in line with the Thailand Nursing and Midwifery Council's national policy and global. The learning outcomes and desired qualities of competency must be identified (Crouch, 2010, P21, 2015). In line with the new sets of 21<sup>st</sup> century skills which emphasise new learning goals such as creativity. The curriculum must conform to the identified strategic plan for health personnel development and the goals of Thailand 4.0 which focuses on technology utilisation and innovation development.

The following recommendations provide direction for developing curriculum guidelines and instructional management for nursing studies via distance education:

- (1) The programme philosophy, mission and objectives should be in line with the graduate identity of being a *"self-directed learner who applies the acquired knowledge to work development and uses ICT in nursing administration to improve the well-being of the people"*. The course curriculum should cover communication competency, particularly English listening, reading, writing and speaking skills. It should also emphasise innovation and the use of technology for research in nursing administration. Furthermore, a competency-based curriculum needs to be developed.
- (2) The development of quality learning materials to support learning and teaching are necessary. Self-instruction contents which guide student learning must be prepared by professional experts who possess the requisite knowledge and skills in particular areas if the graduates are to be competent and confident in their practice (Wright, 2007). Sowana & Jenkinsb (2013) stated that the use of effective instructional strategies resulted in successful distance learning, even for students with limited resources. In addition, teaching and learning must move in tandem with global technological changes and developments. Rahmawati (2017) stated that teaching is a process which always needs new and innovative principles, rules, techniques, methods and procedures in order to meet the

needs of learners. Learners must be provided with a diverse range of learning media. Institutions therefore have to make strategic decisions on how to optimise the use of technology to fit the learners' individualised learning environments. Instructors must also be familiar with the characteristics of students cohort served by the course and design the course accordingly. A recommended instructional model would feature transformative learning, ICT and self-directed learning to ensure successful lifelong learning.

## **CONCLUSION**

The research results assert that the characteristics and identity of graduates from the Master of Nursing Science programme in nursing administration is composed of seven aspects. The characteristic and identity on morality and ethics supports the nursing profession and Thailand Qualification Framework. The remaining six characteristics are ability in using ICT, inquiry and lifelong learning, responsibility, problem-solving and critical thinking skills, human relationships, and knowledge and experience. The findings from this research ranked the graduates' characteristics and identity from the highest to the lowest order: (1) morality and ethics, (2) responsibility, (2) human relationships, (4) inquiry and lifelong learning, (5) problem-solving and critical thinking skills, (6) knowledge and experience, and (7) ability in using ICT. Further exploration through focus groups emphasized the need to develop an efficient interactive online instruction pattern to strengthen the quality of graduates from the Master of Nursing Science programme and to develop a new graduate identity. The research outcomes can be used as a draft for curriculum development and instructional management. Other stakeholders such as clients, and related public and private health entrepreneurs, can be invited to form another informant group to provide more insight and information to the development of a more comprehensive programme.

## **ACKNOWLEDGEMENTS**

The research was funded by STOU. My deepest thanks go to Professor Dr Karen Francis of James Cook University and Professor Dr Chutima Sacchanand of STOU for their contributions and assistance.

## REFERENCES

- Allen, I. E., & Seaman, J. (2013). Changing course: Ten years of tracking online education in the United States. *The Online Learning Consortium*. Retrieved from [http://onlinelearningconsortium.org/publications/survey/changing\\_course\\_2012](http://onlinelearningconsortium.org/publications/survey/changing_course_2012)
- American Association of Colleges of Nursing. (2011). *2010–2011 Enrollment and graduations in baccalaureate and graduate programmes in nursing*. American Association of Colleges of Nursing, Washington, DC
- American Association of Colleges of Nursing. (2013). *2012–2013 Enrollment and Graduations in Baccalaureate and Graduate Programmes in Nursing*. Retrieved from [www.aacn.nche.edu/downloads/ids/2013/EG12.pdf](http://www.aacn.nche.edu/downloads/ids/2013/EG12.pdf).
- Annuar, N., & Shaari, R. (2014). The antecedents toward self-directed learning among distance learner in Malaysian Public Universities. *Proceeding of the Global Summit on Education GSE 2014* (E- ISBN 978-967-11768-5-6) 4-5 March 2014, Kuala Lumpur, MALAYSIA. Organized by WorldConferences.net
- Arpanantikul, M., Prapaipanich, W., Senadisai, S., & Orathai, P. (2014). Nursing administrators' perception of thai registered nurses' professional ethics. *Thai Journal of Nursing Council*, 29(2), 5-20. (in Thai)
- Avery, M. D., Cohen, B. A., & Walker, J. D. (2008). Evaluation of an online graduate nursing curriculum: Examining standards of quality. *International Journal of Nursing Education Scholarship*, 5(1), 1-17. doi:10.2202/1548-923X.1538
- Australian Nursing and Midwifery Accreditation Council. (2016). Retrieved from <https://www.anmac.org.au/standards-and-review/registered-nurse>
- Benja, R., & Keawpasom, S. (2009). Activities, and materials for developing English listening and speaking skills. *JHSS*, 6(2), 173-196. (in Thai)
- Billings, D. M., Dickerson, S.S., Greenberg, M. J., Wu, Y. B., & Talley, B. S. (2013). *Quality monitoring and accreditation in nursing distance education programs*. In Frith, K. H. & Clark, D. J. (Eds.). *Distance education in nursing*. (pp. 163–189). New York, NY: Springer.
- Burgess, J.R.D., & Russell, J.E.A. (2003). The effectiveness of distance learning initiatives in organizations. *Journal of Vocational Behavior*, 63, 289-303.
- Cook, T.H., Gilmer, M.J., & Bess, C.J. (2003). Beginning students' definitions of nursing: an inductive framework of professional identity. *Journal of Nursing Education*, 42(7), 311-317.
- Crouch, S.J. (2010). *Nursing education in the 21<sup>st</sup> century: Turning challenges into opportunities*. Retrieved from [http://southfloridahospitalnews.com/page/Nursing\\_Education\\_in\\_the\\_21st\\_Century\\_Turning\\_Challenges\\_into\\_Opportunities\\_/3/5907](http://southfloridahospitalnews.com/page/Nursing_Education_in_the_21st_Century_Turning_Challenges_into_Opportunities_/3/5907)
- Dacanay, A. P., Vaughn, S., Orr, M., Andre, J., & Mort, K. (2015). Factors contributing to nursing distance education student success. *Journal of Nursing Education and Practice*, 5(2), 34-39.

- Din, N., Haron, S., & Rashid, R. M. (2016). Can self-directed learning environment improve quality of life? *Procedia – Social and behavioral science*. 222, 219-227.
- Dubrin, J. (2013). *Principle of leadership* (7th ed.). Australia: South-Western Western Cengage Learning.
- Edvardsson, I. R., & Oskarsson, G. K. (2009). Distance education and academic achievement in business administration: The case of the University of Akureyri. *The International Review of Research in Open and Distributed Learning*. 9(3). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/542/1150>
- Garrison, R. (2000). Theoretical challenges for distance education in the 21st century: A shift from structural to transactional issues. *International Review of Research in Open and Distance Learning*. Retrieved from <http://www.icaap.org/iuicode?149.1.1.2International>
- Gazza, E.A., & Hunker, D.F. (2014). Facilitating student retention in online graduate nursing education programs: a review of the literature. *Nurse Educ Today*. 34(7), 1125-1129. doi: 10.1016/j.nedt.2014.01.010. Epub 2014 Jan 31.
- Haynor, P.M. & Wells, R.W. (1998). Will nursing administration programs survive in the 21<sup>st</sup> century?. *Journal of Nursing Administration*, 28(1), 15-24.
- Holly, K.A. (2009). Interdisciplinary strategies as transformative change in higher education. *Innovative Higher Education*. 34(5), 331-344.
- Jahng, N., Krug, D., & Zhang, Z. (2007). Student achievement in online distance education compared to face-to-face education. Retrieved from [http://www.eurodl.org/materials/contrib/2007/Jahng\\_Krug\\_Zhang.htm](http://www.eurodl.org/materials/contrib/2007/Jahng_Krug_Zhang.htm)
- Kanteka, F. (2014). Distance education in nursing in Turkey. *Procedia -Social and Behavioral Sciences*. 116 (2014), 639 – 643.
- Kentnor, H. E. (2015). Distance education and the evolution of online learning in the United States. *Curriculum and teaching Dialogue*. 17(1 & 2), 21–000. Retrieved from [https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=1026&context=law\\_facpub](https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=1026&context=law_facpub)
- Knebel, E. (2001). *The use and effect of distance education in healthcare: What do we know?* Operations Research Issue Paper 2(2). Bethesda, MD: Published for the U.S. Agency for International Development (USAID) by the Quality Assurance Project.
- Ledward, B. C., & Hirata, D. (2011). An overview of 21<sup>st</sup> century skills. Retrieved from: [http://www.ksbe.edu/\\_assets/spi/pdfs/21st\\_Century\\_Skills\\_Brief.pdf](http://www.ksbe.edu/_assets/spi/pdfs/21st_Century_Skills_Brief.pdf)
- Lowery, B., & Spector, N. (2014). Regulatory implications and recommendations for distance education in prelicensure nursing programs. *Journal of Nursing Regulation* 5(3), 24-33.
- Ministry of Education's announcement, B.E.2555. (2012). Office of Nation Education Standards and Quality Assessment (Public Organization) .Evaluation Guide: Third Round Quality Higher Education (2011-2015) Ed. More November 2001). (2nd edition). Bangkok. (in Thai)
- Moore, M. G., & Kearsley, G. (1996). *Distance education: A systems view*. New York: Wadsworth

- Niyomwipak, S. (2012). Chapter 1 history and significance of nursing education in distance learning. Retrieved from <http://www.stou.ac.th/nursing/nursingonline/Lesson1.html> (in Thai)
- Novotny, J. M., & Wyatt, R. H. (2006). *Distance education in Nursing*. 2<sup>nd</sup> Ed, New York: Springer publishing company, Inc.
- Oyserman, D., Elmore, K., & Smith, G. (2012). Self, self-concept, and identity. In Leary, M., & Tangney, J. (Ed.). *Handbook of self and identity* (pp. 69-104). London: Guilford Press, Forthcoming. Retrieved from [https://dornsife.usc.edu/assets/sites/782/docs/handbook\\_of\\_self\\_and\\_identity\\_-\\_second\\_edition\\_-\\_ch.\\_4\\_pp.\\_69-104\\_38\\_pages.pdf](https://dornsife.usc.edu/assets/sites/782/docs/handbook_of_self_and_identity_-_second_edition_-_ch._4_pp._69-104_38_pages.pdf)
- Partnership for 21<sup>st</sup> Century Skills (P21). (2007). *Beyond the three Rs: Voter attitudes toward 21<sup>st</sup> century skills. Tuscon: Arizona*. Retrieved from: [www.21stcenturyskills.org/documents/P21\\_pollreport\\_singlepg.pdf](http://www.21stcenturyskills.org/documents/P21_pollreport_singlepg.pdf)
- Perraton, H. (1992). A review of distance education. In Distance Education in Anglophone Africa, P. Murphy, and A. Zhiri, eds. Washington, DC: The World Bank
- Philip, R., & Wozniak, H. (2009). Peer review of teaching practice and resources: exploring new spaces to embrace cultural change. Same places, Different Spaces. Proceedings Ascilite Auckland 2009. Retrieved from <http://www.ascilite.org.au/conferences/auckland09/procs/philips.pdf>
- P21 Framework Definitions. (2015). *Partnership for 21<sup>st</sup> Century Skills*. Retrieved from [http://www.p21.org/storage/documents/docs/P21\\_Framework\\_Definitions\\_New\\_Logo\\_2015.pdf](http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf)
- Rahmawati, W. (2017). *The Instructional Management*. Postgraduate school of english education program - Ahmad Dahlan University. Retrieved from <http://pascapbi-3a.blogspot.com/2017/01/the-instructional-management.html>
- Seven, M. Çınar, F. İ. Fidancı, BE. & Akyüz, A. (2013). A Turkish study of nurses' attitudes towards graduate distance education. *Social and Behavioral Sciences*. 116 (2014): 3898 – 3901.
- Shachar M., & Neumann, Y. (2010). Twenty years of research on the academic performance differences between traditional and distance learning: Summative meta-analysis and trend examination. *MERLOT Journal of Online Learning and Teaching*, 6(2), 318-334
- Siritarungsri, B. (2009). Readiness for distance graduate nurses towards study achievement. Sukhothai Thammathirat Open University, Nonthaburi (Research Paper). (in Thai)
- Siritarungsri, B., Tangkittithaworn, S. & Chotpitayasunondh, C. (2015). Development of a preparation program for knowledge, attitude, and skills for ASEAN community of nurses in Chonpratan Hospital Journal of Faculty of Nursing Siam University. 17 (33), 71-88.
- Siritarungsri, B. (2016). *Leadership for nurses in ASEAN community*. Nonthaburi: Sukhothaitammathirat Open University Press. (in Thai)
- Siritarungsri, B. & Suvannasamrit, C. (2011). Evaluation of the use of a webcast to support nursing learning. *Journal of Nursing Science*, 29(3), 36-41.

- Sowana, AK, & Jenkinsb, LS. (2013). Designing, delivering and evaluating a distance learning nursing course responsive to students' needs. *International Journal of Medical Informatics* 82(2013), 553–564.
- Srisa-an, W. (1986). *Distance Education*. Bangkok: Sukhothai Thammathirat Open University. (Hard copy) (in Thai)
- STOU Planning Division. (2016). *Graduate student data*. n.p. (in Thai)
- Tait, A. (2015). Student success in open, distance and e-learning. *The ICDE Reports Series*. Norway: International Council for Open and Distance Education – ICDE. Retrieved from [http://www.icde.org/assets/WHAT\\_WE\\_DO/studentsuccess.pdf](http://www.icde.org/assets/WHAT_WE_DO/studentsuccess.pdf)
- Tangpanithandee, V., Keawpugdee, J., Sookfong Wongsathapornpat, S. & Piaseu N. (2013). Comparison of opinions towards expectation and the actual situation on teaching and learning in English among nursing students. *RNJ* 2013. 19(3), 417-27. (in Thai).
- Thailand Nursing and Midwifery Council B.E.2557. (2014). Nursing and midwifery regulation on code of professional conduct (B.E. 2550) Retrieved from [http://www.tnc.or.th/files/2014/09/page10189/code\\_of\\_professional\\_conduct\\_pdf\\_18735.pdf](http://www.tnc.or.th/files/2014/09/page10189/code_of_professional_conduct_pdf_18735.pdf) (in Thai)
- Wright, C. R. (2007). Adapting learning materials for distance learning. Retrieved from <http://www.share4dev.info/telecentreskb/documents/4038.pdf>