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GRADUATE NURSES IDENTITY FROM DISTANCE LEARNING CURRICULUM

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Abstract

Over the past decade of nursing shortage crisis in Thailand, only Sukhothai Thammathirat Open University (STOU), a public university, has provided a distance learning program to promote graduate nurses who wish to work and study concurrently. It, however, is still doubtful whether or not STOU graduate nurses identity suits the 21st century nursing criteria. The purpose of this mixed method research were: 1) to study identity of graduates from the Master of Nursing Science Program in Nursing Administration at STOU, and 2) to explore potential guidelines for the distance learning curriculum development in the Master of Nursing Science Program in the 21st century. The sample comprised of: (1) 268 graduate nurses from the program during academic year 2007-2014, 132 co-workers, and 130 supervisors, and (2) 15 representatives of the aforementioned groups, and (3) 13 academic experts. The research tool was a questionnaire relating to 7 identity characteristics of master graduates. Data analysis included descriptive statistics, T-Test, and contents analysis. The research results are as follows. 1) The graduate nurses' identity is being self-directed learning, applying knowledge into work development, using

information and communication technology (ICT) in nursing administration to improve well-being of the people. 2) To add the course contents intended to improve communication competency, particularly English, in the areas of listening, reading, writing and speaking regarding innovation and technology for research in nursing administration. Up to this point, the identity characteristics appropriately serve to graduate characteristics in the 21st century. To strengthen international competency of nurses, it is therefore necessary to include more English courses in the distance learning curriculum.

Keywords

Graduate Identity, Nurses, Master of Nursing Science Program, Nursing Administration, Distance learning, Curriculum

1. Introduction

In the challenging time of the 21st century, nursing curriculum that are delivered by distance learning technologies will continue to increase in numbers. Accelerated programs, flexible course scheduling and remote site options will become a standard for the delivery of nursing courses (Crouch, 2010). This is supported by Cleveland-Innes (2010) who stated that in 21st century distance education has emerged internet- based learning that delivery content and enables communication between instructors and students.

With the uptake of distance learning (DL), which has actually been marginal for most academics, teaching contexts, traditional power structures and relationships have been transformed, leaving lecturers potentially disenfranchised (Delgaty, 2017). Presently, qualified nursing applicants in several countries including Thailand, are being turned away from traditional nursing schools because of a shortage of nursing faculty. They therefore go through a transition where they adopt a new professional identity (Anna, et al., 2017).

As a public university in Thailand, Sukhothai Thammathirat Open University (STOU) employs distance learning approach to support efficient self-study, and promote lifelong learning. Since 2005, STOU has offered the Master of Nursing Science Program in Nursing Administration, using distance educational media, such as printed materials produced by course team and written by content experts, and electronic media; e-learning, webcasting and e-tutorials, that make accessing resources convenient and simply for learners studying abroad and nationwide. To date, 340 nursing master graduates successfully completed the program (STOU Planning Division, 2016).

However, success via distance learning could be a challenge for learners, particularly learners who are nurses working in shifts 24 hours round the clock. Siritarungsri's research (2009) revealed success derived not only from specific identity characteristics within individual learners, but also derived from community assistance, their supervisors, co-workers and families. This observation by Dacanay et al.'s study (2015) indicating the success of nursing students in distance learning depended upon both specific learner's internal characteristics, in particular responsibility and stress management while studying, as well as outside factors such as help from families, instructors and institutions. General characteristics of graduates and specific identity characteristics of learners in this context, therefore, seemed to be a key internal factor for graduation. To confirm what characteristics and identity of graduates are, it is thus necessary to collect data from relevant stakeholders i.e. their supervisors and co-workers.

STOU has offered the Master of Nursing Science Program in Nursing Administration for over a decade (academic year 2005- present), with a large number of graduates, but never before have the overall identity characteristics of master graduates been studied to meet with the higher education standards, professional council and expectations of stakeholders. Furthermore, the Office of the Higher Education Commission (OHEC) released an announcement, the Qualification Standards at Graduate Study Level of School of Nursing B.E. 2555, providing an institutional guideline delineating a standardized criteria (Ministry of Education's announcement, B.E.2555, 2012 p.19), describing desirable competency characteristics graduate nurses should possess, including specific identity characteristics relevant to master students. Meanwhile, the desirable characteristics of a STOU graduate were also identified by its community's public hearing to correspond with STOU philosophy, vision and mission.

As the above rationale, it needs to study Identity of STOU Graduate Nurses to integrate concepts of the Office of Higher Education Commission to sufficiently produce an institutional graduate identity in Masters Graduate in the nursing sciences, in conjunction with STOU's desirable identity characteristics of graduates, including the objectives of Master of Science Program in the 21st Century (B.E.2557-2561) as framework of the research. This study was conducted from the perspective of master graduates, their co-workers and supervisors. It is also expected to serve as guidelines for further curriculum development and instructional management to the Master of Nursing in the 21st century.

2. Literature Review

Distance education, or distance learning, is a field of education that focuses on the pedagogy, technology, and instructional system designs that aim to deliver education to students who are not physically "on site" in a traditional classroom or campus (MacTeer, 2011). Currently, distance education is compatible in an era of transformative learning and transitional nursing education in the 21st century, empowering staff competency in response to the needs of changing healthcare system and society. Based on these contemporary healthcare industry needs, identifying personnel's desired competency characteristics and identity in nurses would direct further curriculum development (the Strategic Plan for Health Personnel's Education Development in the 21st Century (B.E.2557-2061).

Presently, nursing curriculums are increasingly incorporating distance learning in their education to accommodate the increased diversity among learners and to enhance learning experiences that necessitate finding flexible methods of teaching responsive to student needs (Sowana & Jenkins, 2013; Novotny & Wyatt, 2006). Human resources are therefore lessened accordingly in an online learning environment. Numerous international research works (Burgess & Russell, 2003, Edvardsson and Oskarsson, 2009; Tait, 2015) surveying the learning behavior and achievements of overseas learners, who graduate in distance education, confirm a positive outcome satisfying by both learners and their organizations. Holly (2009) & Siritarungsri & Suvannasamrit (2011) indicate the use of new technology in a distance learning system certainly assists student, stimulating a virtual classroom and sparing student's study costs.

In term of professional identity, Ibarra & J. Petrieglieri (2010, 11) argued that it is based on "the various meanings attached to oneself by self and others" in professional arenas. These identities are also constructed in relationship to the "social roles and group memberships a person holds (social identities) as well as the personal and character traits they display and others attribute to them, based on their conduct (personal identities)". Petrieglieri & Insead, (2010) supported identity work is important at all times because it helps to sustain "one's sense of personal agency, continuity, and self-esteem", it is particularly important at times of transition between school and a job, between one position and the next, or between one company and the next. When individuals are required to perform new identities in order to be successful in their new roles.

To understand the principles and reflect on the process of identity construction, Eliot & Turns (2011) stated that there are crucial for an individual's long-term success. It is stated by

Brennan & Timmins (2012), identity is an important part of personnel, and increased professionalization of nursing have impacted on staff and patients mostly in a positive way. Student nurse identity was also shaped by institutional rituals and routine, physically embodied in objects, such as uniforms and hospital medals and informed by claims to honesty, virtue and personal integrity. It argued that changes in the management of nursing education in the 21st century will be a remarkable change in the student identity.

Educational institutions also seem to be lacking in providing students with the general principles about how to create professional identities. For example, Eliot & Turns (2011) found that those schools focus on professional activities and networking and less on understanding what it means to think and work as an engineer. Boyd's study (2013) therefore concluded that making identity work an explicit part of the curriculum could be a useful way to help students learn to professionalize themselves.

In short, graduate identity refers to a successful, congruent personal learning development of students, from their identity's commencing state, in a standardized, designed 'graduate state' of identity that embodies the desirable competency identity characteristics necessary for working nurses, identified by that institute. Graduation with a degree affirms the new state of graduate identity has been achieved and students are finally well-accepted (Oyserman, Elmore, & Smith, 2012). 'Acceptance' is measured by a graduate's ability to acquire a job, being selected into workforce. Any institute must therefore, identify of a graduate to be considered as a guideline for educational management in response to the mentioned identity.

3. Objective

To study graduate nurses identity from the Master of Nursing Science Program in Nursing Administration at STOU, and to explore potential guidelines for the distance learning curriculum development in the Master of Nursing Science Program in the 21st century.

4. Methodology

The research conducted and used a mixed method approach that involved quantitative and qualitative data generation and analysis. The research project was approved by the Ethical Review Committee (ERC) for Research in Human Subjects of School of Nursing, STOU.

4.1 Population and sample group/informant

The population comprised (1) 303 nursing graduates (academic year 2007-2014), (2) their co-workers, and (2) their supervisors. The sample group included 268 persons selected by purposive sampling. These informants were representative of the above 3 groups who completed questionnaires and agreed to be involved in a focus group. The findings distilled from questionnaire data were added by their confirmation. Furthermore, 15 persons; 7 representatives of master graduates (5% selected by drawing lots), 4 administrators and 4 co-workers. Finally, by purposive sampling, these informants included 13 academic experts actively in charge of curriculum development, nursing and health policies, as well as in responsibility for instructional management of distance learning nursing studies, and higher degree level of STOU distance education.

4.2 Research Tools

To find out graduate nurses identity from distance learning curriculum, the questionnaire included two parts; 1) an open-ended and close-ended questionnaire investigating 7 aspects and 71 sub-items of graduate characteristics and personal identity, that was developed based on nursing study concept and identified by STOU. Osgood scale was used 11 levels from 0-10 score, 0 referred to no show of behavior and 10 referred to show of behavior at the highest level. 2) Guidelines for conducting 2 focus groups, the representatives of the first group who completed the questionnaire, and the policy maker and experts for giving reflections and recommendations of the potential guidelines for curriculum development and instructional management of nursing graduates for health personnel in the 21st century. The returned and completed questionnaires of nursing graduates, their co-workers and supervisors for data analyzing were 162, 132 and 130, respectively. Mean, standard deviation, t-test were used in analyzing data for quantitative data, whereas content analysis was used for qualitative data.

5. Research Findings

The demographic details and identity of the master graduates according to the perspective of master graduates, co-workers and supervisors, apparently found as of objectives.

5.1 Research Finding 1

It found that 99.4% of graduates who completed the questionnaire were female and average aged 49 year-old (SD=5.30). Almost employed in the public health sector by the Ministry of Public Health and the positions held are head nurses and in charge nurses,

respectively. The major reason for choosing to study via distance education was to enhance knowledge and skills (98.8%). Graduate respondents identified that the most significant supporting factors to successful graduation were master graduates (93.8%). Next were instructors and family (90.7% and 82.7% respectively) and co-workers and supervisors (58.0% and 49.7% respectively).

The identity characteristics of master graduates will be presented on Table 1 (Siritarungsri et al., 2017)

Table 1: *The highest mean of sub-item of identity characteristics of master graduates for each perspective*

Sub-item of identity characteristics	M	Perspectives
1 Able to balance work life and sufficiency	9.94	supervisors
2. Honesty in work performance	9.40	master graduates
3. Respect for human dignity and value	9.40	master graduates
4. Honesty in work performance	9.23	co-workers
5. Responsibility for own continued learning and self-development	9.12	master graduates
6. Activity initiator and participation in the workplace activity for academic development	9.05	co-workers
7. Ability to work in teams and with other professionals/networks.	9.05	master graduates
8. Incorporate current knowledge into their practice	8.99	co-workers
9. Ability to work with nursing team in the role of team leader when appropriate	8.92	supervisors
10. Works hard and remains steadfast in self-development at all time	8.92	co-workers
11. Ability to integrate knowledge from other relevant nursing theory sciences and evidence-based practice for management application	8.89	supervisors
12. Skill in using Thai language appropriately	8.86	co-workers
13. Ability to offer advice to nursing practitioners, healthcare team members and the general public	8.85	master graduates
	8.82	master graduates
	8.64	supervisors
14. Ability to use ICT independently	8.75	supervisors
	8.68	Master graduates

From Table 2 Questionnaires results, rated by the 3 groups, indicate that each sub-item from each perspective were rated at a highest level. The three perspectives most highly ranked relevant to Moral and Ethics, such as able to balance work life and sufficiency, honesty in work performance, and respect for human dignity and value. Follow by, self - directed learning, such as responsibility for their own continued learning and self-development, they are hard-working and strive for self-improvement. Graduates perform well in their work, are able to work in teams and with other professionals and they are competent giving advice to nursing personnel, other healthcare team members as well as the general public. Finally, graduates have the ability to update their ICT skills to ensure they are able to self-directed learning.

Regarding to the highest mean of sub-item of identity characteristics of master graduates from graduate nurses, co-worker, and supervisors perspectives, it can be concluded that the graduate nurses' identity completing from distance learning curriculum is *"as a being self-directed learner who applies knowledge, and utilizes information and communication technology (ICT) to improve the efficiency of the workplace and to promote best nursing practice thus ensuring the well-being of patients"*.

5.2 Research Finding 2

Distance learning curriculum offered should reflect a philosophy, mission and objectives and also to add the course contents intended to improve communication competency, particularly English, in areas of listening, reading, writing and speaking regarding innovation and technology for research in nursing administration. Up to this point, the identity characteristics appropriately serves to graduate characteristics in the 21st century, such as critical thinking, ICT skills, self-directed learning that enhance lifelong learning and nursing profession competency, particular in nursing administration. Lastly, to strengthen international competency of nurses, it is therefore necessary include more English courses in the distance learning curriculum.

6. Discussion

Following objectives of the research, results of the research discussion are below.

Self-directed learning is significantly identity of students who study through distance education that have to study and work concurrently as well as family commitment. The achievement of the graduate students were found by Tait surveying (2015) that the learning behavior and achievements of overseas learners, who graduate in distance education, confirm a positive outcome satisfying by both learners and their organizations. Tait study was supported by Davis (2015) who stated that education is not limited to that obtained through educational institutes, it continues throughout people lives in many forms. This includes self-directed learning, which is said to begin at the point where institutional education ends.

Davis further found that self-directed learning is positive outcomes for learners, such as being motivated, persistent, independent, self-disciplined, self-confident and goal oriented. Howard, Schenk & Discenza (2004) further supported that distance education classes can be at least as effective and, in some ways, even more effective than face-to-face courses. The rationale behind is that the tools and technologies used for distance education courses facilitate learning opportunities not possible in the face-to-face classroom. Finally, the study of Viverais-Dresler

PUPIL: International Journal of Teaching, Education and Learning
ISSN 2457-0648

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and Kutschke (1992) on nurses' student satisfaction with clinical teaching and student-perceived difficulties in three introductory nursing courses offered by distance education, found that the learners need gradual exposure to self-directed learning to acquire these skills. Therefore distance learning program would be supported nurses engage in education in terms of self – directed learning.

Follow by the application knowledge, and utilizes information and communication technology (ICT) to improve the efficiency and efficacy of the workplace as supported by Buttar, (2016), and to promote best nursing practice thus ensuring the well-being of patients and staff", a research by Shahi, M (2011) inferred that majorities of graduate level nursing students are eager to upgrade their cognitive and psychomotor competencies for professional development by means of Distance Education Technology. It could be an alternative means of teaching even for those nurses who are hard to reach, and serving the mankind at the remote areas. The research was supported by Nilsson Ska¨ r and So derberg (2010) who stated that the use of ICT for communication allowed the district nurses to better support a chronically ill person at home leading to improved home nursing care.

However, Fagerström et al.'s research (2017); asserted that even ICT cannot replace physical presence, it can be considered a complementary service that gives rise to improved patient care. ICT is also used in nursing practice, not only for patient relationships but also for interpersonal communication. Porter-O'Grady (2001) stated that the new technology of learning that highly decentralized, Internet-moderated, satellite-facilitated, portable digital-assisted, and distance-based learning models, while in their infancy, are clearly a part of the emerging models for education in the 21st century that led to a new paradigm of the nursing education. Accountability and ownership for learning was shifted from instructors to students. Many teachers and students are not yet ready for the shift. It need therefore to design learning curriculum and the utility of the graduate in order to appropriate distance learning mode. Finally, Kleib, Simpson, & Rhodes (2016) concluded that nurses must continue to work with ICTs to support evidence-based outcomes and data driven decisions at both the individual and organizational levels.

Guidelines for curriculum development in the master program should satisfy STOU's direction of curriculum development to harmonize with the new identity of nursing master graduates; "self-directed learning, applying knowledge to work development, using information and communication technology in nursing administration to improve well-being of the people";

the self-directed learning still remains as a goal learning style, 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, 2007). On top of this, identification of overall administrative nursing competency at different nursing administrative levels such as organizational, middle and beginning levels, should be in line with Thailand Nursing and Midwifery Council (TNC)'s national policy and global directions i.e. changing management on prioritized social issues, such as aging society, impacts of environmental disaster on people's wellness, chronic illnesses and new diseases found.

Concerning developing a curriculum, the research results suggest it is necessary to follow the higher education standards that correspond with the nursing studies in the 21st century. In other words, to identify the learning outcome and desired qualities of competency (Crouch, 2010; P21 Framework Definitions, 2015) and return to the course design and instructional management to acquire the learning outcome and qualities of competency compatible with the needs of social context.

However, during the decade STOU has offered the distance learning nursing program, the course has been updated every 5 years, to accommodate new knowledge and changes within healthcare. Changing and/or adding updated information is easily distributed to learners when a distance learning system as the resources of electronic media; e-learning, e-tutorials and webcasting are dynamic. In particular, e-learning could be achieved quality enhancement and improvement of English language learning (Laadem, 2017).

The development of quality learning materials that support learning and teaching is are necessary elements of a sound educational programs. The production process of self-instruction contents the guide student learning must be prepared by professional experts in particular areas who have the requisite knowledge and skills if graduates are to be competent and confident in their practice (Wright, 2007) .

In addition, to conform to the identified strategic plan for health personnel development and goals of Thailand Health 4.0 that focuses on technology utilization and innovation development. Learning in the 21st century places an emphasis upon new learning goals - creative learning and learning for the public. In conclusion, the direction for developing curriculum guidelines for nursing via distance education, were found; (1) the program should reflect philosophy, mission and objectives with an essence in line with the discovered graduate identity- self-directed learning, applying knowledge to work development and using information

and communication technology (ICT) in nursing administration to improve well-being of the people. (2) To add the course contents with communication competency, particularly with English, in areas of listening, reading, writing and speaking involving innovation and technology for research in nursing administration. A recommended instructional model would feature transformative learning, information and communication technology and self-directed learning to ensure successful lifelong learning.

7. Conclusion

Nurses' professional identities develop throughout their lifetimes, from before entering nursing education, throughout their years of study and clinical experience, and continue to evolve during their careers (Johnson et al., 2012). The graduate nurses' identity from this research was discovered as a being self-directed learner who applies knowledge, and utilizes information and communication technology (ICT) to improve the efficiency and efficacy of the workplace and to promote best nursing practice thus ensuring the well-being of patients and staff", serves to the 21st century skills that mentioned on learning individualized and using ICT. From this research findings, ICT was used as learning tools for self- learning, and communication among health care teams and patients, as well as building network among nurses in the country and abroad to share evidence- based nursing practice that can be promoted patients and staff well-beings. It is therefore necessary to expand develop an efficient interactive online instructional pattern to strengthen the production of graduates from the Master of Nursing Science Program not only in Thailand but in abroad, encoding the new graduate identity. Moreover, utilize research outcomes as a draft for development of the distance learning curriculum should be created. Invite other stakeholders such as clients, related public and private health entrepreneurs to be another informant group to provide more insight and information to lead to a complete program that meets with their needs.

8. Acknowledgement

References

Anna, H, Veronica, L., Susanne, K., Max, S. & Veronica, V. (2017). Striving for balance - A qualitative study to explore the experiences of nurses new to the ambulance service in Sweden. Nurse Education in Practice, Nov 2017, 27, 63-70.

Buttar, S.S.(2016). ICT in Higher Education. PEOPLE: International Journal of Social Sciences. 2(1), 1686-1696. Retrieved from https://www.grdspublishing.org/index.php/people/article/viewFile/173/161.

Brennan, D. & Timmins, F. (2012). Changing institutional identities of the student nurse. Nurse Education Today. 32 (2012), 747–751. Retrieved from http://eprints.teachingandlearning.ie/1836/1/Brennan%20and%20Timmins%202012%201-s2.0-S0260691712001736-main.pdf

Boyd, P. (2013). Online Discussion Boards as Identity Workspaces: Building Professional Identities in Online Writing Classes. Journal of Interactive Technology and Pedagogy. 4(4). Retrieved from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=6&sid=7f0f9203-412f-4cc7-bf50-b464bee09c50%40sessionmgr101

Burgess, J. R. D., & Russell, J. E. A. (2003). The effectiveness of distance learning initiatives in organizations. Journal of Vocational Behavior. 63, 289-303. https://doi.org/10.1016/S0001-8791(03)00045-9

Cleveland-Innes, M. (2010). Teaching and learning in distance education: Enter a new era An introduction to distance education. Understanding teaching and learning in a new era. New York and London: Routledge.

Crouch, S. J. (2010). Nursing Education in the 21st Century: Turning Challenges into Opportunities. Retrieved from http://southfloridahospitalnews.com/page/Nursing_Education_in_the_21st_Century_Turning_Challenges_into_Opportunities/5907/3/

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.

Davis, J. (2015). Education through Self-directed Learning. Australian Nursing & Midwifery Journal. July 2015, 23(1), 26-27.

Delgaty, L. E. (2017). Redefining Practice: Challenging Academic and Institutional Traditions With Clinical Distance Learning. Electronic Journal of e-Learning. 15(1), 17-32.

Retrieved from http://eds.b.ebscohost.com/eds/detail/detail?vid=1&sid=7f0f9203-412f-4cc7-bf50 b464bee09c50%40sessionmgr101&bdata=JnNpd GU9ZWRzLWxpdmU%3d#AN= 123138276&db=ehh

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

Eliot, M. & Turns, J. (2011). Constructing Professional Portfolios: Sense Making and Professional Identity Development for Engineering Undergraduates. Journal of Engineering Education. 100(4), 630-654. https://doi.org/10.1002/j.2168-9830.2011.tb00030.x

Fagerström, C., Tuvesson, H., Axelsson, L.,& Nilsson, L.(2017). The role of ICT in nursing practice: an integrative literature review of the Swedish context. Scandinavian Journal of Caring Sciences. 31(3), 434-448. https://doi.org/10.1111/scs.12370

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 https://doi.org/10.19173/irrodl.v1i1.2

Haynor P. M. & Wells, R. W. (1998). Will nursing administration programs survive in the 21st century?. Journal of Nursing Administration. 28(1), 15-24. https://doi.org/10.1097/00005110-199801000-00005

Holly, K. A. (2009). Interdisciplinary strategies as transformative change in Higher education. Innovative Higher Education. 34(5), 331-344. https://doi.org/10.1007/s10755-009-9121-4

Howard, C., Schenk, K., & Discenza, R. (2004). Distance Learning and University Effectiveness: Changing Education Paradigms for Online Learning. Hershey, PA: IGI Global. https://doi.org/10.4018/978-1-59140-178-0

Ibarra, H. & Petriglieri, J. (2010). Identity Work and Play. Journal of Organizational Change Management. 23(1), 10-25. OCLC 615222968. Distance Education in Prelicensure Nursing Programs. 5(3), 24-33. https://doi.org/10.1108/09534811011017180

Johnson, M., Cowin, L. S.; Wilson, I. & Young, H. (2012). Professional identity and nursing: contemporary theoretical developments and future research challenges. International Nursing Review. 59(4), 562-569. https://doi.org/10.1111/j.1466-7657.2012.01013.x

Kleib, M., Simpson, N., & Rhodes, B. (2016). Information and Communication Technology: Design, Delivery, and Outcomes from a Nursing Informatics Boot Camp. The Online Journal of Issues in Nursing. 21(2), Manuscript 5.

Laadem, M. (2017). E-learning Integration in Higher Education: Focus on Moroccan Departments of English. PUPIL: International Journal of Teaching and Learning. 3(3), 155-173. Retrieved From https://doi.org/10.20319/pijtel.2017.12.115133

MacTeer, C. F.(2011). Distance Education. New York: Nova Science Publishers, Inc.

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).

Nilsson , C., Ska¨ r, L., & So¨ derberg, S. (2010). Swedish District Nurses' experiences on the use of information and communication technology for supporting people with serious chronic illness living at home – a case study. Scand J Caring Sci. 24, 259–265. https://doi.org/10.1111/j.1471-6712.2009.00715.x

Novotny, J. M. & Wyatt, R. H. (2006). Distance education in Nursing. 2nd 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 21st Century Skills. (2007). Beyond the Three Rs. Voter Attitudes toward. 21st Century Skills. Retrieved from http://www.p21.org/storage/documents/p21_pollreport_2pg.pdf

Petriglieri, G. & Insead, J. (2010). Identity Workspaces: The Case of Business Schools. Academy of Management Learning & Education. 9(1), 44-60. https://doi.org/10.5465/amle.9.1.zqr44https://doi.org/10.5465/AMLE.2010.48661190

P21 Framework Definitions. (2015). Partnership for 21st Century Skills. Retrieved from http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf

Porter-O'Grady, T. (2001). Profound change: 21st century nursing. Nursing Outlook. 49(4), 182-186. https://doi.org/10.1067/mno.2001.112789

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

Shahi, M. (2011). Awareness of nurses on distance education in Nepal. Journal of Institute of Medicine. Apr2011, 33(1), 8-13.

Siritarungsri, B. (2009). Readiness for Distance Graduate nurses towards Study Achievement. Sukhothai Thammathirat Open University, Nonthaburi (Research Paper). (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.

Siritarungsri, B., Putapitakpol, S., Kaewpo, C., Onmanee, N.& Sunato, P., (2017). Characteristics and Identity of Graduate Nurses Completing a Distance Learning System. ASEAN Journal of Open Distance Learning. 9(2), 43-55.

Sowana, A. K, & Jenkinsb, L. S. (2013). Designing, delivering and evaluating a distance learning 436 nursing course responsive to students' needs. International Journal of Medical Informatics. 82(6):553-64. https://doi.org/10.1016/j.ijmedinf.2013.02.004

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

Viverais-Dresler, G. & Kutschke, M. (1992). Students' satisfaction with clinical teaching in a distance education program. Journal of Continuing Education in Nursing. 23(5), 224-230.

Wright, C. R. (2007). Adapting Learning Materials for Distance Learning. Commonwealth of Learning. Retrieved from http://oasis.col.org/bitstream/handle/11599/29/KS2007_Adapting-Learning-Materials.pdf?sequence=1&isAllowed=y