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The Utilization of Portfolio in the Teaching/ Learning on Seminar in Issues and Trends in Nursing Profession Subject

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Noophakdee, P., Surasvade, C., and Ratanathai, R. Boromarajonani College of Nursing, Bangkok, Thailand. The Utilization of Portfolio in the Teaching/Learning on Seminar in Issues and Trends in Nursing Profession Subject.

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ABSTRACT

The objectives of this study were to compare the students' attitudes towards portfolios in Teaching and Learning, abilities in clinical problem-solving before and after seminar, determine the relationship of students' abilities in seminar between their peer groups' and the instructors, determine the relationship of students' seminar report writing abilities as evaluated by the instructors and themselves, and to study students' abilities on working process. The samples were 80 second-year students in the continuing program. The research tools were composed of 2 scales, 4 assessment forms, and MEQ test. The data were analysed by SPSS/FW program using mean, SD, Paired t-test and relations. The results were found as follows: The students' attitude towards portfolios in teaching/learning before and after the seminar in issues and trends in nursing profession were statistically different at $p < .001$. The clinical problem-solving abilities before and after the seminar in issues and trends in nursing profession were statistically different at $p < .001$. The abilities in seminar leader, seminar participants and seminar report writing were at a high level and there were significant correlations between instructors' and students' evaluation respectively. ($r = .764, .667$ and $.745$).

The students congruently evaluated themselves on the working process at high level in all aspects. The reasoning of chosen issues of study and work were composed of 1) need to reach the subject's goals, 2) satisfaction in knowing friends from working as a group, 3) sharing knowledge and learning to accept themselves and others, 4) getting more experiences and applying it to work after graduation. Moreover, they felt that their instructors' gave good advice and were completed experts which made the students have confidence in the instructor's knowledge. However, they wanted their instructors in the subgroup consultant provided the congruently advised on the process, writing the project and evaluation of the seminar, to improve the teaching resources and to provide them with more study time.

INTRODUCTION

Teaching and learning activities in nursing education are aimed to produce graduates who are able to provide holistic nursing care to both healthy and unhealthy individuals, families, group and communities, based on scientific knowledge, arts, moral and professional ethics. Nursing colleges under Praboromarajchanok Institute believe that teaching and learning is a process of exchanging knowledge and experience among teachers, learners, clients, families and communities through various methods (Praboromarajchanok Institute, 1999): 2. To enable students to apply knowledge for holistic care, they must be well equipped with problem solving abilities, life-long learning skills and good attitudes towards working with other health teams and communities. One of the subjects which provide opportunities for students to gain those experiences is Issues and Trends in Nursing Profession Subject. It is a seminar subject of two credits in which students would learn about the principles and techniques of seminars and conduct a seminar on a selected topic. The topic selected can be any issue or trend related to nursing education, services, administration, research and professional development. Students will have opportunity to take two roles while conducting a seminar: seminar leaders and participants. It was anticipated that they will develop critical thinking skills, communication skills, and learn how to work in a team where they can take turns being

leaders and participants. In addition, portfolio assessment, which is an authentic assessment instrument, was used to measure the outcomes of the student's work.

OBJECTIVES

The objectives of the study were to:

- compare the attitudes of students towards the utilization of portfolio before and after studying on issues and trends in nursing profession seminars.
- compare students' clinical problem-solving abilities before and after study in this subject.
- determine the relationship of students' abilities in seminar between their peer groups' and the instructors'.
- determine the relationship of students' seminar report writing abilities as evaluated by the instructors and themselves.
- study students' abilities on working process.

OPERATIONAL DEFINITIONS

Nursing students referred to second year students who were studying in the Bachelor Degree of Nursing Science Program (Continuing Education Program) in the academic year 2004 at Boromarajonani College of Nursing, Bangkok. The Portfolio was a set of student's work in the study of issues and trends in nursing profession subject. It was comprised of the report on principle and techniques of seminar, the seminar project on selected issues, the seminar report and other pieces of work produced during the process of study.

Issues and Trends in Nursing Profession Subject was defined as a seminar in which students would learn about the principle and techniques of seminar and conduct a seminar on selected topic. The topic can be any issue and trend related to nursing education, services, administration, research and professional development. The seminar report was a piece of work in a student's portfolio that demonstrated what they have studied and learned about the topic selected. This work was to be measured for their writing ability by the teachers and themselves using a seminar report writing form.

The attitudes of students towards the utilization of portfolio meant their feelings and opinions towards the teaching and learning activities of this subject using a rating scale of 18 items.

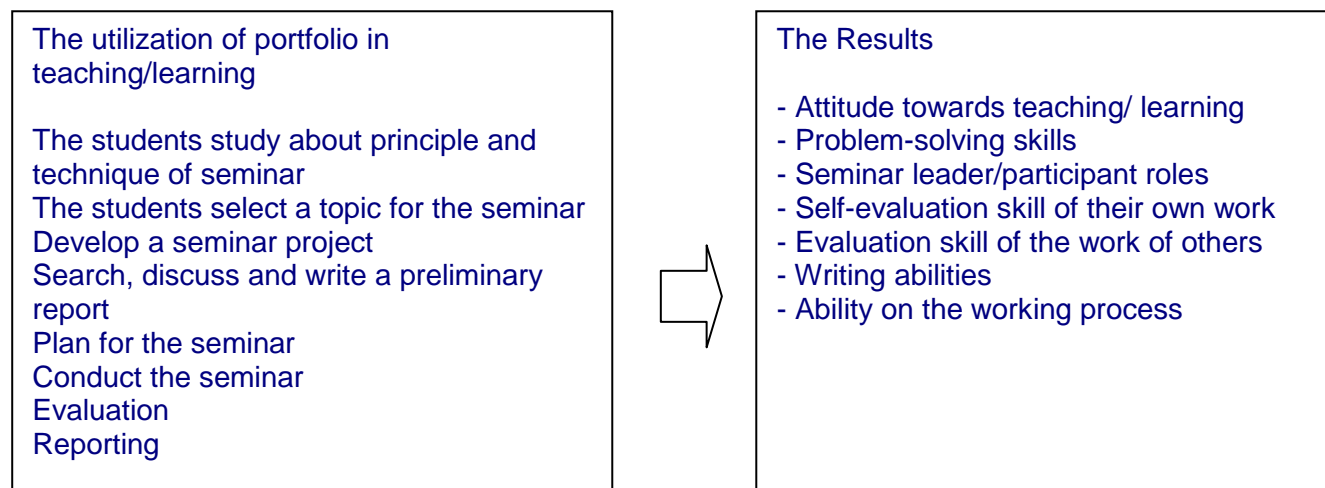
Problem solving abilities were students' abilities to solve clinical problems measured by a MEQ Test.

Students' abilities in seminar were abilities to investigate pertinent topics, analyse them, and draw some conclusion. The topics were presented, using many methods to the larger seminar group, which further analysed, critiqued, and applied it to the topic. The students had two roles: seminar leader and seminar participants and used two different assessment forms.

The seminar leader was held accountable for involving the whole group in discussion. They brought some prepared questions to stimulate discussion and they stopped to direct the discussion and keep it on track. The seminar participants were evaluated on clarity of speech, extended knowledge, asking questions, sharing ideas and stating conclusions. The ability on the working process was students' ability on the process of working and writing as evaluated by them.

THE CONCEPTUAL FRAMEWORK

The conceptual framework of this study is shown in the diagram below.



METHODOLOGY

a. Sample

The sample comprised 80 second-year students in Bachelor's Degree of Nursing Science Program (Continuing Program). The study was conducted in the second semester in the academic year 2004 during 7 June to 1 August 2004.

b. Instruments

The research instruments was composed of two scales on student's attitude towards the utilization of portfolio (5 rating scales : 18 items) and was developed by the research team from the attitude toward the teaching / learning (Suk Soontornsanee 1988) The criteria of the intervals of scores on student's attitude towards the utilization of portfolio were high (78-90), moderate (59-77), and low (41-58) and a self evaluation tool on working process (Scoring rubric 0-4:11 items) used by Booncherd Pinyoanuntapong (1995). The criteria of the intervals of scores on the working process were high (3.00-4.00), moderate (2.00-2.99) and low (1.00-1.99).

The four assessment forms (on the seminar leader role, seminar participants' role, seminar report, and open-ended questions on their general opinion toward teaching and learning this subject) were Institute's measurement forms. The criteria of the intervals of scores on the seminar leader and seminar participants were high (43-50), moderate (34-42) and low (Below 33) and low. The criteria of the intervals of scores on the seminar report were high (34-40), moderate (26-33) and low (< 26).

The MEQS test consisted of two situations related to communication problem and administrative problem. Student had to read the situation and answer question on identifying of problems, search of alternative, evaluations of alternative and searching the best alternative. This MEQS is applied from Jarawan Peethong, Captain (1997).

The content validity of the instruments were evaluated by the instruction teams and Quality Management Representative Committee (QMRC). Thirty students from the other group were asked to answer the scale of student's attitude towards the utilization of portfolios; the clinical problem solving abilities and working process. The Cronbach's Alpha Coefficient of the three instruments were 0.8952, 0.6710 and 0.8260 respectively.

RESULTS

The attitudes towards the utilization of portfolio in teaching/learning

Table 1: The comparison of attitude scores towards portfolio before and after teaching/learning seminar on issues and trends in Nursing Profession Subject

Attitude	Mean	S.D.	t-value	df	p-value
Before Learning	74.04	7.13	10.81	79	.000
After Learning	81.04	5.31			

The table shows that the mean attitude score towards the utilization of portfolio after learning on seminar in issues and trends in Nursing Profession Subject was statistically higher than that of before at .001(p-value<0.025).

The clinical problem-solving abilities

Table 2: The comparison of clinical problem-solving abilities scores before and after learning seminar on issues and trends in Nursing Profession Subject

Problem Solving Ability	Mean	S.D.	t-value	df	p-value
Before Learning	12.24	2.07	- 60.49	79	.000
After Learning	28.13	2.71			

The table shows that the mean score of clinical problem-solving abilities after learning seminar was statistically higher than that of before at .001 (p-value <0.025).

Relationship of Instructors and Students Evaluations on seminar leaders, seminar participants and seminar reports.

Table 3: Relationship of Instructors and Students Evaluations on seminar leaders, seminar participants and seminar reports.

Student Abilities	Mean	S.D.	r	p-value
Seminar leaders				
Evaluated by Instructors	43.09	1.715	.764	.000
Evaluated by Peer	43.41	2.097		
Seminar participants				
Evaluated by Instructors	43.41	1.280	.667	.001
Evaluated by Peer	43.90	1.755		
Seminar reports				
Evaluated by Instructors	36.14	1.290	.745	.000
Evaluated by themselves	36.01	1.025		

The table shows that the correlation of the scores of seminar leaders, seminar participants and seminar report were significant at .001(p-value <0.025).

The self-evaluation score on the abilities on working process

The students congruently evaluated themselves on the working process.

Table 4: The mean and standard deviation of self-evaluation scores on the working process

Working Process	Mean	S.D.	Level of self-evaluation scores
1. Responsibility	3.57	.56	High
2. Patience	3.69	.49	High
3. Tidiness	3.51	.53	High
4. Proposing ideas	3.36	.61	High
5. Searching information	3.52	.57	High
6. Conceptualization	3.43	.56	High
7. Writing abilities			
7.1 Contents of knowledge	3.48	.50	High
7.2. Coverage and completion	3.33	.50	High
7.3 Conciseness	3.38	.54	High
7.4 Clarity	3.44	.57	High
7.5 Association of contents	3.51	.35	High
Total	3.47	3.91	High

The table shows that the students evaluated themselves on the working process at high level in all aspects. However, they rated highest scores on aspects of patience and responsibility and lowest score on aspects of coverage and completion and proposing ideas.

The qualitative data from open-ended questions

In addition, they reported that the reasons for choosing issues of study and work were to 1) achieve the subject's goals, 2) be satisfied with getting to know friends by working as a team, 3) share knowledge and learn to accept themselves and others, 4) gain more experience and be able to apply it to work after graduation. Moreover, they felt that their Instructors gave good advice and were complete experts which made the students have confidence in the Instructors' knowledge. However, they wanted their Instructors in the subgroup consultant provided the congruently advised on the process, writing the project and evaluation of the seminar, to improve teaching resources and to provide them with more study time.

CONCLUSION AND DISCUSSION

The results showed that the students' attitude scores towards the utilization of portfolios and their clinical problem-solving abilities after the teaching/learning seminar on issues and trends in Nursing Profession were significantly higher than those of before. This is because there were various teaching/learning activities which helped them to integrate their past experience and personal interest with their work in this subject. Those activities enhanced their critical thinking skills, problem-solving skills, communication skills, writing skills, and team work. Those skills were recommended by Forke and McDonald (1996) and Suvit Moolcom (1999) as skills that could be enhanced by the assessment criteria guided by portfolios.

These recommendations were consistent with the studies of Sripai Chaiya (1998) who found that students who learned what they expected would be happy and love to learn and of Somchai Mingmit (1996) who found that students who were assessed by portfolio had a better achievement and attitude towards their study than those who were assessed by the traditional methods.

The results also showed that the mean scores of the seminar report, seminar leader and seminar participants evaluated by teachers and students were at high level and there were significant correlation between instructor's and student evaluation. This was because the students were instructed on how to write a report and they were supervised closely by a team of instructors along the process of study. They also had opportunities to observe and practice how to be a good leader and participant when conducting seminars and how to give comments and suggestions to others.

Moreover, it was found that the students evaluated themselves on their abilities on the working process at high level in all aspects. Surprisingly, they rated highest scores on aspects of patience and responsibility and lowest score on aspects of coverage and completion and proposing ideas. These results could be explained by noting that patience and responsibility are basic professional ethics of nurses and those characteristics were cultivated in students since they were technical nurses. On the other hand, students had less opportunity to obtain writing skills and proposing ideas while they were studying in technical nurse program due to the nature of the curriculum and the traditional assessment methods being used. It was accepted that in the past, multiple choice questions (MCQs), rating scales and checklists were commonly used.

The idea of using portfolio was supported by Wenzel, Briggs and Puryear (1998) who stated that traditional assessment measures yield limited information to aid in further instruction and rank students against one another. Alternative assessment strategies are being sought to assess a broader range of student knowledge and capabilities. Those strategies should be able to identify student learning needs, and allow for varied levels of problem-solving, critical thinking, and synthesis in realistic contexts. Finally, they recommended that portfolio development and evaluation are strategies that could successfully meet individualized needs and are proposed as alternatives to standardized evaluation.

RECOMMENDATIONS

This study is intended to develop teaching/learning and strategies for colleges of nursing under Praboromarajchanok Institute. According to our research results, we suggest the following curriculum planning and instructor training: The utilization of portfolios in teaching/learning is not difficult. This teaching/learning strategy can be developed a broader range of student knowledge and capabilities (Rane-Szostak, & Robertson.1996), but some behaviour changes (e.g., proposing ideas, writing ability) may not appear in the short term. In the seminars, the small subgroup investigates the topic that they are interested in, analyses them, and draws some conclusion. The topics are presented using many methods to the larger seminar group, which further analyses, critiques, and applies the topic, (Deyoung 1990) Therefore, we suggest that the period of teaching/learning should be 16 weeks.

Instructor motivations and capabilities are factors that influence teaching/learning using portfolios. In the beginning, the teaching/learning process will cause the students stress. We suggest that the instructors' selection process carefully take into account instructors personality characteristic (e.g. supporting manner, caring manner) and enthusiasm for teaching, and offer instructors methods of preparation both using portfolio and seminar teaching strategy and deep and wide knowledge in issues and trends of professional nursing.

The Instructors should consult with the students frequently concerning the grading of portfolios. As students are at accustomed to portfolio assessment, there will inevitably be a certain lack of understand about how portfolio assessment work. In particular, it is important that students understand and agree with the peer input to their assessment. The Instructors should provide opportunities to their students in proposing ideas and improving the writing abilities by using this method in other subjects.

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