

PROGRESS TEST SIGNIFICANTLY INCREASES THE NURSING EXAM TRYOUT SCORE

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Progress Test Significantly Increases the Nursing Exam Tryout Score

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Abstract— Preparing for the National Nursing Exam is a challenging process that requires creative strategies. The aim of this study is to evaluate the effect of progress test, a tailored program to familiarize students with the National Exam test system and questions, on the students' performance in the Nursing Exam Try Out. This study was a pre-experimental study with one group pre and post-test design. Of the total 143 eligible internship nursing students, 139 participated in the pretest and 125 finished the post-test within 2 months duration. During the study, the students were practicing online through the progress test program in their 6 different home-based hospitals in Yogyakarta and Central Java. The 180 multiple choice questions for progress test were developed based on the National Nursing Exam Blue Print and have been reviewed by the internal reviewers. The result of the study showed that there was a statistically significant increase of the exam score from 43.75 ± 9.59 to 48.49 ± 7.83 ($p < 0.000$). With passing grade of 47, only 57.6 % students passed the exam in the pretest while 62.5 % passed the exam in posttest. The progress test can be used as an effective strategy to prepare and increase the possibility to pass the National Nursing Exam.

Keywords— progress test, national nursing exam, nursing student, e-learning

I. INTRODUCTION

Nursing profession required standardized system to assess the nursing students' competencies. In the United States, the National Council Licensure Examination for Registered Nurses (NCLEX-RN) has been implemented since many years ago to ensure that the nurses are competent and met the required standard. The current form of NCLEX-RN is a computerized and adaptive testing model which means that the questions begin with the easier questions and becomes more difficult as the test progresses, and more challenging questions are presented at the end of the exam [1].

Recently, Indonesian government has released the regulation about nursing profession and licensure system. The Indonesian Nursing Act No. 38 of 2014 stated that the National Nursing Exam or Nursing Competency Examination is an examination to assess the knowledge, attitude, and practices of nursing students in nursing education institution. The National Nursing Exam is mandatory for every professional nurse in Indonesia, and passing the exam is one of the requirements to receive the Indonesian Nursing Registration Number. The first National Nursing Exam was held in 2014, and it had been regularly held twice a year. Since 2017, the examination has been conducted three times a year. The National Nursing Exam is steered by nursing education institutions in collaboration

with Indonesian Nursing Association (INNA) and accredited certification organization.

Preparing National Nursing Exam is challenging. The data from the Ministry of Research, Technology, and Higher Education in Indonesia showed that the percentage of the nursing student passing the National Nursing Exam was ranged from 40.47% to 65%. In 2019, batch 1 (March), only about 8.330 students from total 20.533 passed the exam [2]. The nursing students who did not pass the National Nursing Exam could not receive the Indonesian Nursing Registration Number which hinders them to work as a professional nurse. The higher number of nursing students who failed in the National Nursing Exam causes many problems because it increases the jobless number in Indonesia and decrease the number of health professionals in the field.

Moreover, the number of nursing students who passed the National Nursing Exam as the first taker is one of indicators of the nursing education institution's quality and accreditation. The higher the number of the first taker passed the National Nursing Exam, the better the quality of the nursing education institution's quality and vice versa. Nursing education institutions with low percentage of students who passed the National Nursing Exam means that they are not ready to prepare their nursing students to be a competent and professional nurse.

School of Nursing, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta (SON FMHS UMY) is one of nursing education institutions which has the commitment to produce high quality of nurses based on the Indonesian Nursing Standard Competencies. Since the National Nursing Exam has been implemented in 2014, about 88-93% of the nursing students passed the National Nursing Exam [2]. However, this number is still under the expectation because the SON FMHS UMY has a target to achieve more than 95% up to 100% nursing students passed the National Nursing Exam. In achieving it, the school of nursing has implemented several strategies to prepare the students in the National Nursing Exam such as developing the question banks based on the National Nursing Exam blue print, conducting mentorship program, and encouraging the students to participate in National Nursing Exam try out.

However, there are some aspects that need to be improved. Based on the evaluation of the mentorship program in the SON FMHS UMY, some problems are noticeable. First, the participation of the nursing students in the National Nursing Exam try out and the mentorship program was only about 80-

90% because the National Nursing Exam try out was implemented during the student's clinical stage rotation, and the mentorship program was implemented in 1-2 weeks before the National Nursing Exam while some of the students, especially those who come from other islands in Indonesia, have returned to their hometown. Some students also have worked in various sectors other than nursing area during their waiting time of the National Nursing Exam. Therefore, they found difficulty to attend and participate in the try out and mentorship process.

Try out is very important for preparing the student in the National Nursing Exam. Several studies in Indonesia found that try out is one of significant contributing factors of passing the National Nursing Exam [3]–[5]. Other study also recommends the implementation of try out or practice test through various sources to expose the students with the test [1], [6]. They can develop mastery of the content and critical thinking that is beneficial to finish the test.

Second, the mentorship program that has been implemented face to face (offline) has a limitation in the meeting frequency. The mentorship program was only scheduled 1 time for each department except medical surgical nursing department that has 3 times meeting because of its many credits. The limitation of the meeting frequency in the mentorship program limits the student to review and explore more questions to prepare the exam. Meanwhile, the students must be familiar and practice more questions to ensure that they understand the various type of questions in the National Nursing Exam. Therefore, innovative strategy to accommodate the student to learn and participate in the National Nursing Exam preparation process is strongly needed like progress test.

Progress test is the program to facilitate the student to practice the standardized questions for the National Nursing Exam through the e-Learning system (ELS). This online program enables the students to access the program everywhere and learn independently. They can review the questions and develop further strategy to improve their ability in facing the real exam. The objective of this study was to examine the effect of progress test --a tailored program to familiarize students with the National Exam test system and questions-- on the students' performance in the Nursing Exam Try Out.

II. LITERATURE REVIEW

The standard of Indonesian nurses' competencies is based on the Indonesian Nursing Standard Competencies which is legalized by the Indonesian Nurses National Association. In order to ensure that every nurse in Indonesia has achieved the standard nurses' competencies, Indonesian government has released the regulation about health care provider's registration system including nursing profession which stated clearly about the national exam as one of the requirements to be registered.

National exam is one of quality assurance processes to measure the knowledge, attitude and practice based of profession standard to guarantee that the health care providers perform their roles in effective and safety procedures. National exam also can be used as the professional recognition. Those who passed the national exam are ready to take care of the patients and can apply their best competencies to improve the people's health status.

Ministry of Research, Technology and Higher Education stated that the objectives of the National Nursing Exam are to improve the accountability of nursing profession, to implement the standard and professional ethics in practice, to cross check the competence of graduated students from various nursing education institutions, to protect the people' trust to the nursing profession, to guarantee that the graduated nursing students are competent and have met the national standard, to improve the quality of nursing care, to protect the patients, clients, and people in community, and to give the legal certainty to people and nurses [7].

The legal basis of the National Nursing Exam is the Health Professionals Act No. 36 of 2014, the Nursing Act No. 38 of 2014, and the Ministry of Research, Technology and Higher Education Rule No. 12 of 2016 which stated clearly about the implementation of the National Nurses Exam. The principles of the National Nursing Exam are standardized, just, valid, and reliable. First, the implementation of the National Nursing Exam uses national standard. The examiners, materials, locations, scoring processes, and decision of the results are based on the national standard. Second, all of the examinees must be treated in the same way, without any discrimination. Third, all of the equipment and tools used to the examination process must be tested for their validity, and the result of the exam must be valid. Fourth, the competencies that are tested must be based on the profession standard and the compatibility between the materials should have been taught and the questions must be synchronized.

Preparing the National Nursing Exam is a challenging process. The published research regarding the successful strategies of the National Nursing Exam preparation in Indonesia still lacks. However, numerous studies to prepare nursing students to pass the NCLEX-RN have been published. There are three strategies for the faculty members in helping the nursing students to be successful in the NCLEX-RN which are regarding to the content mastery, test anxiety, and text-taking skills improvement program [6]. To improve the content mastery, the faculty members must identify the learning needs of the individual and the group using NCLEX-RN formatted examination and develop further plan to support the students based on the identification result. Test-retest strategy can also be implemented to allow the students view their individual improvement over the course of a semester. The students should be encouraged to take the computerized NCLEX-RN formatted tests at home, in the library or at school. After answering multiple NCLEX-RN type questions at one sitting and scoring the questions, the students can use the result to identify the content for review.

The intervention to reduce the test anxiety includes the advisory from the faculties and support group from other students that promote confidence and reduce anxiety. Several modalities can also be implemented including the guided imagery, meditation, visualization of the final goal, as well as the daily stress management activities such as exercise, healthy eating, and adequate sleep [6]. Furthermore, the test-taking skills can be improved through several means including the improvement of critical thinking, consideration of context, identification of keywords, isolation the problem in the test question, and identification the information needed to solve the problem [6].

The previous studies showed that several factors contribute to the pass rate of the National Nursing Exam. A study among 106 nursing students in Faletihan College of Nursing Serang found that GPA, the National Nursing Exam try out, and liveliness during the clinical stage were related to the passing rate of the students [5]. The researchers found that after the logistic regression analysis, control of the GPA and national try out, the Odds Ratio (OR) of liveliness of the student was 156.7 meaning that students with good liveliness have 157 times higher possibility to pass the National Nursing Exam than those with low liveliness.

Another study found that readiness to test, the National Nursing Exam try out, academic achievement (GPA), and institution role are related to the students' passing rate in the National Nursing Exam [4]. Furthermore, they stated that student's readiness to test is the most dominant factor that influence the passing rate. Moreover, it has been found that the National Nursing try out, academic achievement (GPA), and learning style were related to the national Nursing Exam pass rate [3].

III. METHODOLOGY

This was a pre-experimental study involving one-group only with pretest and post test design. The progress test program was implemented to 143 nursing students in the clinical stage (5th year students) by using total sampling technique. Meanwhile, 139 students participated in the pretest, and 125 students completed the posttest. The program was implemented through e-Learning system (els.fkik.uly.ac.id) while the students practiced in their 6 different home-based hospitals in Yogyakarta and Central Java (PKU Muhammadiyah Yogyakarta Hospital, PKU Muhammadiyah Gamping Hospital, RSUD Temanggung Hospital, RSUD Purworejo Hospital, PKU Muhammadiyah Temanggung Hospital, and RSUD Tidar Hospital).

The internal online nursing exam try out scores were used as the pretest and posttest before and after the progress test program. The questions used to internal nursing exam try out were developed and reviewed internally by the members of each nursing departments that consist of medical surgical nursing, maternity nursing, emergency and critical nursing, pediatric nursing, nursing management, psychiatric nursing, community nursing, family nursing, and gerontology nursing department. The composition of the questions for the try out was based on the National Nursing Exam blue print with total of 180 questions. The different set of questions was used for pretest and posttest.

During 2 months of the study (September – October 2016), the students received 2 times of progress test. The progress test was implemented within the last 3 months of the clinical stage to facilitate the students to learn and gain more experiences in taking care of the patients. The progress tests were scheduled at the same time for every student in 6 different home-based hospitals, and the duration of each progress test was 180 minutes based in national standard. The students could use their personal computer, laptop or tablet to access the progress test as long as the internet connection was available. At the end of every progress test, the students could access their score that enabled them to self-evaluate and develop strategies to improve their score for the next progress test, as well as to familiarize and review the questions.

The pretest and posttest scores were compared by using Wilcoxon Signed Rank Test with p value < 0.05 to measure the students' performance in the internal nursing exam try out. The student's achievement was also measured by using the passing grade of 47 (passing grade of the National Nursing Exam in 2015). Those whose scores were equal to or more than 47 were categorized as passed, and the rest was categorized as failed. The students' achievements were compared by using McNemar test with p value < 0.05.

This study implemented the ethical principles of research. The participation in this study is voluntary, there was no penalty for students who refused to participate or withdraw from the study. The data was kept in confidential, and there was no discrimination toward the students before, during, and after the implementation of the study based on their participation or score in this study.

IV. RESULTS & ANALYSIS

The result in table 1 shows that there was statistically significant increase of try out score before and after the implementation of progress test (p 0.000). The average score before the program was only 43.75, while after the implementation of the program, the average score was 48.49. The score increased 4.74 point. Although there were a few improvements after the implementation of the program, this post test score was above the passing grade point of 47.

TABLE I. THE COMPARISON OF THE INTERNAL NURSING EXAM TRY OUT BEFORE AND AFTER THE PROGRESS TEST

Try Out Score	Mean	Median	SD	z-Score	P-Value
Pretest (N = 139)	43.75	45.56	9.59	-6.64	0.00
Posttest (N = 125)	48.49	50.00	7.83		

TABLE II. THE COMPARISON OF THE STUDENT'S ACHIEVEMENT IN THE INTERNAL NURSING EXAM TRY OUT BEFORE AND AFTER THE PROGRESS TEST

	Student's Achievement		r	p-Value
	Passed	Failed		
Pretest (N = 139)	42.4%	57.6%	18.89	0.00
Posttest (N = 125)	62.5%	37.5%		

The table 2 depicts that the progress significantly improved the student's achievement in internal nursing try out exam (p 0.000). More students passed the nursing exam try out after the implementation of progress test. This study used cut point score, 47 as the passing grade to categorize the student's achievement based on the latest passing grade point in 2015. The passing grade point in the National Nursing Exam is decided based on the National Nursing Exam Guideline where the exam committee conducts a formal meeting that involves the representatives of nursing education institutions in Indonesia, judges and related sector. The meeting is held right after the National Nursing Exam and used Modified Angoff Method [8]. Thus, the passing grade in every period of exam may be different. However, recent period of the National Nursing Exam never has passing grade point lower than the previous passing grade point.

The positive result in this study could be influenced by several factors comprising of the early exposure and

familiarization of the student to the standardized questions based on the National Nursing Exam Guideline, familiarization of students with the computer-based test (CBT) system, progress test as internal try out, and educational process.

In this study, the set of questions used for measuring the student's performance and achievement in nursing exam try out was based on the National Nursing Exam Guideline related to the item development and the item review. The questions in the exam must be able to assess student's knowledge at least in level C3 (application, implementation and relationship) based on Bloom taxonomy. It also must be able to assess student's competency both affective and psychomotor aspect. Each question is multiple choice questions with one best answer that has vignette, fulfilling the dimensions of national exam questions including competency areas, competency domain, body of knowledge, nursing process, human needs, and body system.

This kind of question is rarely used in students' regular examinations. Therefore, many students are not familiar with this kind of questions. The student's frequency in facing and answering some type of questions facilitates the student to develop the ability for answering the questions. They can memorize and process previous experience when they answered the questions in previous exam to improve their performance and achievement for the next exam. The more the students practice answering some types of question, the more they receive better result.

Unfamiliar with the type and blue print of the questions is considered as one barrier in the National Nursing Exam. A research found that based on the focus group discussion among 6 nursing students in Universitas Muhammadiyah Jember, they stated that they were not familiar with the type of the questions. As a result, they felt anxiety, doubt, confused, and not confident in choosing the best answer [9].

Multiple-choice questions (MCQ) require strategies to be solved. This type of question is not only used to test the nursing student in National Nursing Exam in Indonesia. The National Council Licensure-Registered Nurse (NCLEX-RN), a national nursing exit examination test in the United States and other several foreign countries, also use MCQ for the test questions. Multiple choice questions for NCLEX-RN merely require recall and recognition skills that less cognitively demanding than items that mandate the retrieval of complex, and associative information for long term memory. Test taker must have some skills to answer MCQ in NCLEX-RN including critical thinking (problem solving, decision making, and diagnostic reasoning) and the consideration of context (identification and appraisal of assumptions, keywords, and prioritizing identifiers). They also have to be able to isolate the problems in the test question, identify the information needed to solve the problem, and recognize that the question is a generic question and should be separated from their own personal belief [6].

Multiple-choice questions are used in every regular cognitive test in SON FMHS UMY. About 50% to 80% of the questions are using vignette and designed to familiarize the students with the National Nursing Exam questions. The percentages of the vignette in the MCQ are based on the students' level. First year students received lesser questions with vignette. The questions levels are ranged from C2 up to C5 of the Bloom Taxonomy depending on the subject learning

objectives and outcomes. This strategy is employed to drill the students to improve their clinical reasoning and decision making as needed in the National Nursing Exam.

Second, the use of computer-based test (CBT) during the progress test can familiarize the students with the National Nursing Exam. When they are familiar with the system, they can develop strategies to overcome some problems that may arise during the CBT. The CBT utilization during the regular exam is something that relatively new in Indonesia. Some institutions use computer-based test for their regular exam such as in SON FMHS UMY. However, many nursing education institutions have not utilized the computer-based test system for their regular exam yet.

Computer-based test is more challenging rather than paper-based test. The students do not only have to deal with the questions in test but also the computer system such as monitor, mouse, keyboard, and other technical thinks. Computer anxiety, differences in the degree to which students are familiar with using computers, and technical malfunctions (computer equipment may not always be available or in working order) are several disadvantages of CBT compared to PBT [10]. Students have a problem with the screen monitor brightness that hinders them to concentrate on the questions and answers and increase the fatigue and anxiety [9].

The study found that the anxiety score of the nursing students undertaking CBT was higher than those who took paper-based test (PBT) [11]. Although the score was not statistically significantly different, the higher anxiety score among CBT test taker should be anticipated.

CBT is almost safe from human error, time saving, accuracy, keeping records, flexible and comfortable environment, and etc. However, the disadvantages should be anticipated. Therefore, the students must be exposed with the CBT as early as possible. The use of CBT during the regular program was to prepare students for the NCLEX-RN format [12]. A study which evaluated the implementation of secure laptop-based testing (SLBT) program in an undergraduate nursing program found that the students believed the SLBT program helps them get hands-on experience of taking exams on the computer and get them prepared for their NCLEX-RN which is also computerized [13]. They found that although there was no significant difference in the first-time passing rate between the paper-based test and SLBT program, the result showed that the students used CBT were 1,37 times higher if they were taught with the SLBT system than taught with PBT.

SON FMHS UMY was aware that the technology advancement calls for real actions to prepare the students to face the National Nursing Exam that use CBT. Therefore, SON FMHS UMY has utilized CBT for conducting regular examination at the end of each subject since 2014. In each semester, the students take at least 6 times of CBT to assess their cognitive aspect. The faculty members also encourage the students to use E-Learning System. Many formative assessments have been tested through ELS, such as mini quiz before the tutorial and other quiz related to the topics that have been taught. Frequent use of CBT and ELS increased the student's confidence in dealing with the computer matters such as the screen brightness adjustment, screen display and layout, and computer related to anxiety and fatigue. SON FMHS UMY also has adequate supporting IT staffs, CBT centers, internet connections, and ELS that support the progress test program.

Although some problems related to the internet connection and E-Learning System error may emerge, the program manager can coordinate and communicate with the IT staffs to ensure that the connections and E-Learning System are well-functioned during the progress test program and other test project as well as to prevent and solve the error problems.

Third, progress test in this study plays an important role as an internal try out. Try out is a strategy to early expose the student with the test. Try out enables the students to gain more experience in various aspect including the type of questions, the test environment and atmosphere, anxiety management and self-evaluation and assessment. There are two kinds of try out: internal try out which is conducted by the nursing education institution independently or try out that is organized by certain institution association and national try out organized by the National Nursing Exam Committee. The internal try out can be conducted more frequently than the national try out depending on the institution's needs. However, national try out is only held 3 times a year with the organized schedule. The internal try out can accommodate the student's need to practice more and allow them to gain mastery related to the test.

The study conducted with 59 nursing students found that student's participation in try out is positively associated with the student's performance and achievement in the National Nursing Exam [3]. Those who pass the try out were more likely to pass the National Nursing Exam. Another study also found that there was a significant correlation between the National Nursing Exam try out and the student's achievement [4].

Previously, before the implementation of progress test, SON FMHS UMY implemented paper-based test to evaluate the mentorship program and evaluate the readiness of students in taking the National Nursing Exam. However, the paper-based test had several disadvantages. The coordinator of paper-based test had to prepare the copy of the test sheets, distribute the test sheets, and score the test sheet manually. These were time-consuming, costly, and required high resources. The manual scoring process was also considered less objective because of the possible mistakes during the scoring process. The test was also implemented at the end of the mentorship program prior the National Nursing Exam while the students required more practices in taking the test.

Most of the SON FMHS UMY students took national try out exam before they took the National Nursing Exam. The national try out exam provides real experiences about the National Nursing Exam. The progress test in this study is considered as an internal try out exam because the try out is coordinated by the internal faculty members of SON FMHS UMY. Although the exact same experiences and atmosphere of test could not be provided to the students, but the students could directly practice and self-evaluate their ability. This progress test was also free of charge, compared to the National Nursing Exam that required the students to pay. Thus, the progress test can be implemented as frequent as possible based on the students and institutions' need.

The fourth factor is an educational process implemented in the institution. The educational process that facilitates the students to master the content of the exam, to be able to manage anxiety during the test, and to improve test-taking skills are very important to increase the successful rate in NCLEX-RN [6]. Thomas and Baker further suggested that there are several educational processes and intervention to improve student's

mastery of the test's contents. In the students' first semester, the faculty members have to prepare students to succeed on computerized MCQ test. Next, the learning process should promote the utilization and implementation of evidence-based learning nursing that allows the students to appraise evidence, reflect on practice, and nurture habits of mind that cultivate solutions to complex problems. The individual learning style also should be considered. The faculty members should assess the student's learning styles, develop, and adjust teaching styles and modalities to accommodate different learning styles, and provide tools to meet learning styles and learning needs by which the students can be more successful in implementing theory into practice. Additionally, the teaching and learning shift from traditional lecture into case-based learning was reported to be one of contributing factors in the student's success rate on the NCLEX-RN [12].

Test anxiety management is very important to improve the student's performance during the test. The faculty members should promote the awareness about the importance of mind, body, and spirit connection and address the need for proper nutrition, sleep, and exercise before taking the test. The faculty advisory, support group program, the utilization of anxiety reduction modalities such as guided imagery, relaxation, meditation, visualization of the goal can be implemented to reduce anxiety. Furthermore, adequate preparation from the beginning of the nursing program with try out, test practices and drill are more effective for the examination [6].

Test taking skills improvement is also very beneficial for the students. Considering that the test is using MCQ, the students must be familiar to this type of question. The faculty members must focus on aspect of critical thinking including problem solving, decision making, and diagnostic reasoning; consider the context including identification and appraisal of assumptions. Indeed, the students must be taught to identify the keyword (exclusionary words, prioritizing identifiers), isolate the problem in the test question, identify the information needed to solve the problem, recognize that the question is a generic question and should be separated from their own personal belief [6].

The School of Nursing has implemented student centered learning in its educational process. Several approaches have been applied to support the students achieving their best result in the National Nursing Exam since in the student's first year of the study such as the implementation of problem-based learning and case-based analysis in each subject, the integration of evidence-based nursing in every subject, and the teaching learning process that encourage the students to be develop critical thinking, decision making and clinical reasoning. The early clinical practice exposure during the academic level also has been implemented to empower the competences in clinical practices that is also beneficial to help the student to answer the clinical question in the National Nursing Exam.

The implementation of progress test needs several preparations. The first step is the set of question preparation. In this step, the progress test coordinator should coordinate with the head of each department to develop and review the standardized questions. It is strongly suggested that the item writers have participated in regional or national item development workshop and received item writer certificate. The item reviewers also must have experience in item review

workshop either in regional or national level. The reviewed questions then must be collected to the coordinator. Together with the team, the coordinator set the progress test questions set that meets the National Nursing Exam blue print.

The second step is the integration of the progress test into e-Learning System. The progress test coordinator collaborates with the ELS coordinator, and IT support staffs upload the set of question into the ELS and set the time and related technical needs to conduct the progress test. The third step is the announcement to the students. Since the students in this research are in different areas to do their clinical practice stage, the progress test coordinator must ensure that all of the students received clear information about the progress test.

The fourth step is the progress test implementation. During the progress test, the students can access the ELS from their personal computer, laptop or tablet. The availability of the internet connection is mandatory to access ELS. To prevent trouble during the test, several strategies have been applied. During the test, the students' work is automatically saved. Anytime they are disconnected from the internet connection or error occurred, their works have been safe. During the error, the test time is automatically stopped. Hence, they would lose their time. However, internet disconnection and errors, although can be anticipated with certain programs or systems, they may disrupt student's concentration and increase anxiety. Right after the progress test, the student's score is displayed on the screen, so the student directly knows the result of the progress test. The students are allowed to review their test after all of the students completed the progress test. The review process allows them to self-evaluate and further develop problem solving strategies for the next progress test.

V. CONCLUSION & RECOMMENDATION

In conclusion, progress test can be considered as one strategy to increase the student's possibility to pass the National Nursing Exam. The progress test is easy to be implemented, scored, and evaluated. It is also economical and can be implemented although the students are not in the same location.

Passing the National Nursing Exam is mandated to get Indonesian Nursing Registration Number. Although the exam is not considered as the exit exam yet, those who failed in the National Nursing Exam would find difficulty to get job as a professional nurse. Therefore, nursing education institutions must prepare their students to pass the National Nursing Exam. They can implement the progress test as frequent as they want to prepare their students.

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7%

SIMILARITY INDEX

7%

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5%

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