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NCLEX-RN® Success: An Integrative Lesson Plan

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ABSTRACT

The National Council Licensure Examination-Registered Nurse (NCLEX-RN)® measures the mastery of essential content for safe, entry-level nursing practice. The 2016 NCLEX-RN® Detailed Test Plan is a guide for NCLEX-RN® preparation. A lesson plan was developed as a resource for nursing educators that integrated content from the Detailed Test Plan into didactic instruction according to the revised Bloom's Taxonomy. Innovative technology is used in the classroom to create a simulated clinical environment and the paradigm *introduce, recall, review* reinforces content.

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Introduction

The current clinical environment is increasingly complex. To adequately prepare students for nursing practice, educators must consistently integrate innovative teaching strategies into the nursing curriculum. This article highlights a salient approach to lesson plan development as a resource for nursing educators to assist with student preparation for the National Council Licensure Examination-Registered Nurse (NCLEX-RN)® (National Council of State Boards of Nursing [NCSBN], 2016a). The lesson plan exemplar integrates current content from the NCLEX-RN® Detailed Test Plan, *Educator Version*, into didactic instruction according to the revised version of Bloom's Taxonomy (Anderson & Krathwohl, 2001) using the paradigm *introduce, recall, review*. Future development and implementation of lesson plans utilizing this innovative methodology may improve student success on the NCLEX-RN®.

Background and Significance

The NCLEX-RN® was developed as a standard to demonstrate that nursing students entering the workforce possess the necessary knowledge and skills for clinical practice (NCSBN, 2016a, 2016b, 2016c). Because of the need to maintain clinical relevance, the practice analysis is used to design course content for the NCLEX-RN® (NCSBN, 2015a). The data obtained from the practice analysis study is used to maintain examination reliability and validity (Lunz & Bergstrom, 1991; O'Neill, 2004; Williams, Kim, & Dickson, 2014; Woo & Dragan, 2012) and update the NCLEX-RN® Test Plan on a routine basis (NCSBN, 2016a,

2016b, 2016c). The test plan provides an organizational framework for the examination and is a valuable resource for nursing educators.

The Practice Analysis

The practice analysis is performed every 3 years to provide information about current nursing practice and maintain accuracy of the NCLEX-RN® (NCSBN, 2015a; Williams et al., 2014). Three components are involved in the practice analysis: the assembly of a subject matter expert panel (SME), the development of Activity Statements, and the completion of the Practice Analysis survey (NCSBN, 2015a). The SME panel is composed of individuals who supervise entry-level nurses in the clinical practice setting. This panel assembles to develop the Activity Statements, a list of nursing tasks that are included in the Practice Analysis survey. The Practice Analysis survey is a large-scale survey that is mailed to thousands of newly licensed nurses in their first year of practice who are asked to rate the frequency and importance of tasks performed in the clinical setting. These data are a reliable and valid indication of current nursing practice (NCSBN, 2015b).

The Test Plan

The test plan provides a summary of the content distribution on the NCLEX-RN®. Examination content is organized into client needs categories, client needs subcategories, related content, and activity statements. There are four client needs categories, including safe and effective care environment, health promotion and maintenance, psychosocial integrity, and physiological integrity. Client needs provide a universal structure for nursing actions and competencies, emphasizing the client, regardless of the setting (NCSBN, 2016a, 2016b, 2016c).

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Two of the client needs categories, safe and effective care environment and physiological integrity, are divided into subcategories. The subcategories for physiological integrity include basic care and comfort, pharmacological and parenteral therapies, reduction of risk potential, and physiological adaptation. The category physiological integrity and the subcategory physiologic adaptation were selected for use in the lesson plan exemplar.

Each client needs subcategory is further divided according to related content, that is, similar content with respect to nursing practice. The related content selected from the subcategory physiological adaptation for use in the lesson plan exemplar was hemodynamics.

Activity statements are a list of nursing tasks performed in the clinical setting that are developed for use in the Practice Analysis survey (NCSBN, 2015a). Each activity is evaluated according to the frequency in which the task is performed and the importance of each task from the perspective of the entry-level nurse. These data guide content distribution on the examination and validates current, entry-level nursing practice as a basis for Test Plan development (NCSBN, 2015a). There are two versions of the Test Plan that include the activity statements: the 2016 NCLEX-RN® Detailed Test Plan, *Candidate Version* and the 2016 NCLEX-RN® Detailed Test Plan, *Educator Version* (NCSBN, 2016a, 2016b, 2016c). The activity statements are organized in the Test Plan to correspond with related content. The activity statement, Manage the care of a client on telemetry, was selected for use in the lesson plan exemplar.

Knowledge Statements

The knowledge statements are developed using a similar methodology to that used to develop the activity statements. An SME panel composed of educators, supervisors, and newly licensed nurses, who practice in various geographic regions where the examination is administered, assemble to develop the knowledge statements. The activity statements are used as a basis for the knowledge statements; several knowledge statements are written to correspond with each activity statement. The knowledge statements are then incorporated into the 2014 RN KSA survey and mailed to newly licensed nurses, nursing educators, and nursing supervisors on a 3-year cycle (NCSBN, 2015). The aim of this survey is to identify the knowledge necessary for safe and effective entry-level nursing practice. The data obtained from these surveys, the 2014 Practice Analysis and the 2014 RN KSA, guide content

distribution on the NCLEX-RN® and are an integral part of item writing and Test Plan development (NCSBN, 2016a, 2016b, 2016c).

The Lesson Plan Methodology

To maintain clinical relevance, nursing educators must consistently integrate essential content into the curriculum. We have developed a lesson plan exemplar that integrates test plan content using innovative teaching strategies into didactic instruction, according to the hierarchical structure of Bloom's cognitive domains (Anderson & Krathwohl, 2001). The paradigm *introduce, recall and review* is used as a method to reinforce an understanding of the content. An example of the lesson plan content including the pedagogical domains is presented in Fig. 1. This methodology provides a framework for nursing educators to facilitate student preparation and mastery of essential nursing content for the NCLEX-RN®.

Lesson Plan Exemplar: Manage the Care of a Client on Telemetry

This lesson plan was developed for use in a medical–surgical or critical care course. It incorporates content from the 2016 NCLEX-RN® Detailed Test Plan (NCSBN, 2016a, 2016b, 2016c) using the client needs category *physiologic integrity* and the subcategory *physiological adaptation*. The activity statement and related content selected are the following: Manage the care of a client on telemetry and hemodynamics, respectively. Several knowledge statements are associated with this activity statement, including client assessment, vital signs, skin assessment, cardiac rhythms, medications, cardiac lead placement, emergency care, professional resources, scope of practice, and medical equipment (NCSBN, 2015b). Content from the test plan that was selected for use in the lesson plan exemplar is illustrated in Fig. 2.

Objectives and Purpose

The purpose of the lesson plan is to promote student mastery of the content involving the management of care of a client on telemetry monitoring. By the end of this lesson, students will be able to

- perform a thorough cardiovascular assessment;
- assess the presenting symptoms of cardiovascular events;

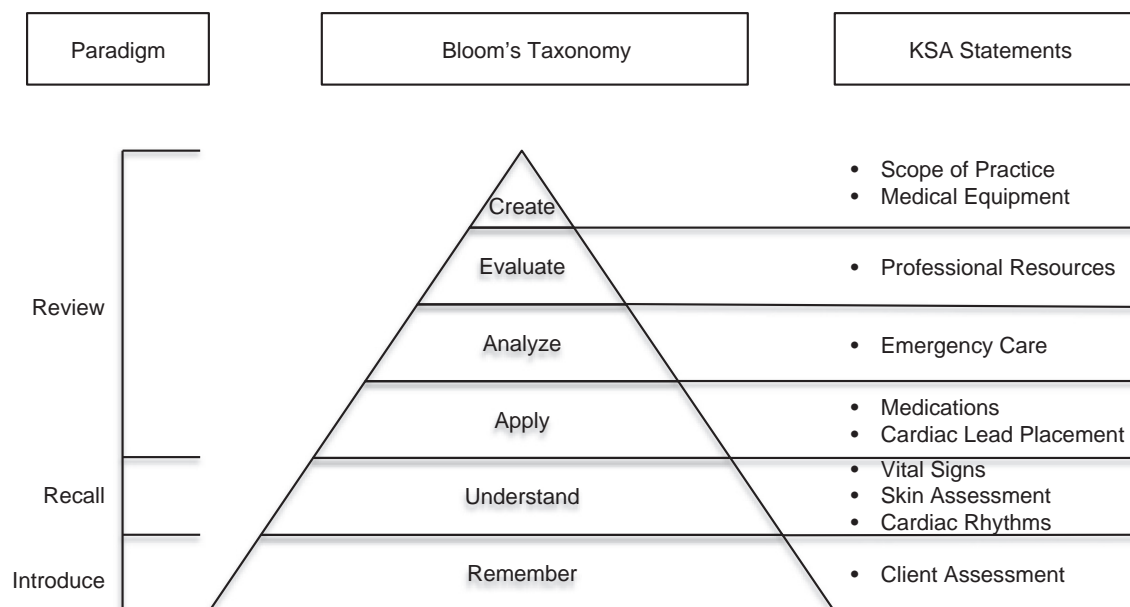


Fig. 1. Lesson plan pedagogy.

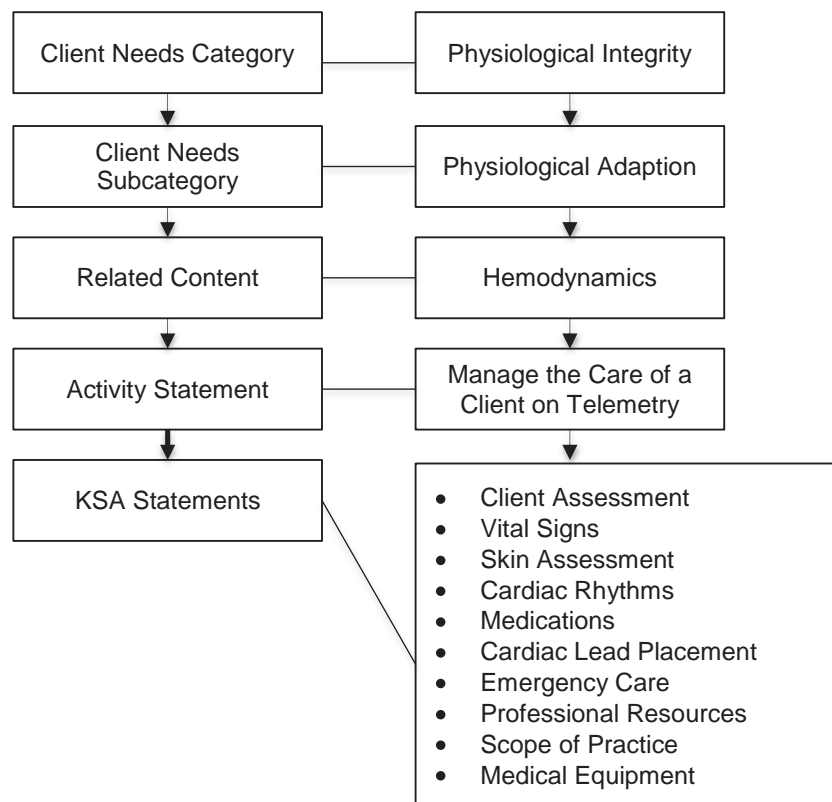


Fig. 2. Content from the NCLEX-RN® Detailed Test Plan.

- develop a systematic approach to the interpretation of basic cardiac rhythms and dysrhythmias;
- formulate and apply appropriate nursing diagnoses;
- discuss relevant presenting signs and symptoms;
- determine appropriate prioritization of care and delegation of resources;
- identify relevant clinical education topics; and
- utilize collaborative services and postdischarge agencies.

Required Materials

The required materials for this lesson plan include an instructor-prepared lecture, a pre- and postlecture quiz, case studies for the application of content, and Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) simulation scenarios to facilitate clinical strategies into the didactic content. The clinical scenarios are integrated using commercially available ACLS simulation software and trainer equipment including: a manikin with clinical monitoring capability, a defibrillator and pacemaker, electrocardiogram (EKG) leads, oxygen administration devices, and pulse oximeters. These materials correspond with content primarily related to cardiovascular nursing care. Examples of such content include rhythm interpretation and analysis for 3-, 5- or 12 lead ECGs, cardioversion, transcutaneous pacing, BLS and ACLS algorithms, advanced physiologic and pharmacologic content including drug calculations, oxygen administration, gas capnography and x-ray interpretation.

Lesson Plan Implementation

An example of the pedagogical domains and methodology used in the lesson plan exemplar are illustrated in Table 1. The proposed methodology involved interactive discussions, clinical simulation strategies, skill demonstration, case study analysis, presentations,

and evaluation. The knowledge statements from the KSA Survey (NCSBN, 2015b) are integrated according to the revised version of Bloom's Taxonomy to facilitate critical thinking (Krathwohl, 2001). The paradigm *introduce, recall, review* is utilized throughout the lesson to reinforce content.

Lesson Plan Part 1: Introduce

Prior to class, students are assigned textbook material pertaining to cardiovascular content; anatomy, physiology, and pathophysiology. A "no-stakes" prelecture quiz is administered at the beginning of class to measure the amount of content remembered, consistent with Bloom's cognitive domain (Anderson & Krathwohl, 2001). The lesson also includes a brief lecture on the topic of cardiovascular nursing care, including assessment, interventions, knowledge statements, and evaluation.

Lesson Plan Part 2: Recall

Next, the nursing instructor facilitates an interactive discussion to reinforce an understanding of content related to managing the care of a client on telemetry. Students will recall cardiovascular assessment content, including vital signs and a skin assessment for electrode placement, rhythm interpretation, and an understanding of presenting symptoms, history, and physical examination findings.

An evolving case study is used to provide students with the opportunity to demonstrate clinical skills and critical thinking. Students are asked to recall essential content to care for a client with an acute coronary syndrome, such as BLS and ACLS protocols; electrode placement to perform a 12-lead electrocardiogram; rate, rhythm, and interval (PR, QRS, QT) interpretation; and dysrhythmia (atrial, junctional, and ventricular) analysis.

A cardiovascular assessment is performed, consistent with the beginning stages of the nursing process, and nursing diagnoses are

Table 1The Lesson Plan Exemplar: *Paradigm, Revised Bloom's Taxonomy, Test Plan Content and Knowledge Statements*

Paradigm	Time frame	Revised Bloom's Taxonomy	Knowledge statements	Integration of knowledge statements, Bloom's Taxonomy, and Approach
Part 1: Introduce	N/A	Remember	Client assessment	<ul style="list-style-type: none"> No stakes prelecture quiz Introduction of anatomy, physiology, and pathophysiology of the cardiovascular system and client assessment
Part 2: Recall	3–15-minute sessions/45 minutes	Understand	Vital signs Skin assessment	<ul style="list-style-type: none"> Interactive discussion to promote understanding of the management of a client on telemetry <ul style="list-style-type: none"> Assess client's presenting symptoms, history, and perform physical examination to include vital signs and skin assessment for EKG lead placement Technology-driven ACLS simulation <ul style="list-style-type: none"> Systematic approach to interpreting <i>Cardiac rhythms</i>, including atrial, junctional, and ventricular dysrhythmias, rate, rhythm and interval (PR, QRS, QT) and prioritization of care Stepwise procedure for the use and application of the 5-lead and 12-lead EKG, cardiac lead placement Application of nursing diagnoses to nursing care, including short and long term goals, testing and diagnostic procedures, and medication administration
	90 minutes	Apply	Medications Cardiac lead placement Cardiac rhythms	<ul style="list-style-type: none"> Discuss presenting signs and symptoms, medical history relevant to circulatory system, and emergency care emphasizing impact on the client
Part 3: Review	45 minutes	Analyze	Emergency care	<ul style="list-style-type: none"> Identify relevant client education topics, coordination of care based on the unfolding case study, and use of professional resources
		Evaluate	Professional resources	
		Create	Scope of practice	<ul style="list-style-type: none"> Case study <ul style="list-style-type: none"> Case review and client evaluation relevant to the scope of practice and at the end of the session, a no-stakes postlecture quiz

prioritized. An interactive discussion is conducted to facilitate critical thinking and analyze nursing care decisions.

Lesson Plan Part 3: Review

A presentation involving heart failure (HF) content is delivered via lecture. The pathogenesis of acute coronary syndrome has now progressed to HF; the symptoms and manifestations of HF require more advanced treatment interventions such as assistive devices, ACLS, and teamwork. The medical history, presenting symptoms and physical examination findings, and diagnostic test results form the basis for treatment interventions. The outcomes are then evaluated according to the nursing process.

The clinical strategies for the patient with advanced HF include hemodynamic support and life-saving supportive measures, potentially the insertion of a pacemaker or intraaortic balloon pump, or left ventricular assist device. To facilitate critical thinking, alternative measures are considered to improve hemodynamic support, oxygenation, or pharmacologic management. The outcomes of these strategies are then evaluated to determine effectiveness.

Students are encouraged to identify the need for ancillary professional resources within the scope of practice, such as hospice care or ethicists to address ethical issues and assist with managing complex care needs. Students can apply didactic content to nursing care by creating patient education materials on the topics of disease management, medications, or cardiac rehabilitation. In addition, effective communication techniques may be demonstrated through role-play or in the form of group presentations as an effective means to review content. Last, a no-stakes quiz is administered at the end of the lesson to measure an understanding and application of content.

Conclusion and Implications

Student mastery of the NCLEX-RN® is essential for entry-level nursing practice. The 2016 NCLEX-RN® Detailed Test Plan: *Educator Version* provides a framework for NCLEX-RN® content. A lesson plan exemplar has been developed as a resource for nursing educators to assist students

with preparation and success on the NCLEX-RN®. The lesson plan integrates test plan content into didactic instruction according to the revised version of Bloom's Taxonomy, using the paradigm *introduce, recall, review* to reinforce content. While this lesson plan presents content involving managing the care for the client on telemetry, additional lesson plans using various client needs categories can be developed using similar methodology.

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