Evaluating the Effectiveness of Instructional Methodologies Among Nurses: Lectures, E-Learning and Self Study Strategies

Tracey Soper, DNP, EdD, MSN
Chamberlain College of Nursing, Chamberlain College of Nursing, El Paso, TX, USA

Nurses are a highly educated audience requiring an effective teaching-learning delivery system for their on-going certification requirements. The purpose of this quantitative experimental study was to examine which of three instructional methodologies, traditional lecture, online electronic learning (e-learning), and self-study take home packets, are effective in knowledge acquisition of professional registered nurses involving a required short-term continuing educational coronary heart disease course as required by the Joint Commission to acquire or maintain hospital chest pain accreditation. A true-experimental design was conducted to contrast the knowledge acquisition of 87 registered nurses randomly selected from all registered nurses at the hospital who were then randomly assigned to each of three instructional methodologies that offer the same content. A 40-item Acute Coronary Syndrome (ACS) true/false test was used to measure knowledge acquisition. Based on .05 significance level, the ANOVA test revealed that there was no difference in knowledge acquisition by registered nurses based on which of three learning instructional method they were assigned. It can be concluded that while all of these instructional methods were equally effective in knowledge acquisition, these methods may not be equally cost and time effective. The study recommends that hospital educators formulate policies that support effective knowledge acquisition of nurses while also considering the efficient use of nurses’ time and institutional financial resources.

Instructional methodologies are educational approaches use for information sharing and learning (U.S. Naval Academy, 2010). Instructional methodologies provide the guidance for information delivery. This research involved comparing three instructional methodologies, lecture, teacher guided electronic (e-learning), and self-study take-home packets. The intent of the research was to identify which of these three instructional methodologies produced the greatest knowledge acquisition in registered nurses required to complete a short-term educational module about coronary artery disease. Nurses are a highly educated audience requiring an effective teaching-learning delivery. Registered nurses employed in the acute care setting such as in hospital are required by the Joint Commission to be exposed to and demonstrate competency involving coronary artery disease.

The Joint Commission does not prescribe the method or exact educational content. Each participating hospital may determine the course content and methodology of delivery. Hospital educators are delegated the responsibility to administer effective curriculum, course content, and teaching methodology. Hospital human development officers need to know classic education pedagogy in the nursing field, which typically involves a teacher actively lecturing and the students passively listening (Mickelson, Kaplan, & MacNeilly, 2009). Newer methods exist and would perhaps be more effective. Identifying the most effective course delivery could save resources while supporting learners’ knowledge acquisition and retention. The goal of determining appropriate course delivery however is the responsibility of the human resource development officer.

The research aimed to distinguish which of the three instructional methodologies of lecture, teacher-guided electronic learning, and self-study take-home packets had the most effective influence on learner’s knowledge acquisition in a short-term professional learning experience. The succeeding parts of the chapter will discuss the background of the study, problem statement, purpose of the study, significance of the study, nature of the study, research questions, theoretical framework, definition of terms, assumptions, scope, and limitations.
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**Keywords:**
Continuing Education, Research and teaching

**References:**

**Abstract Summary:**
Nurses are a highly educated population, requiring effective instructional methodology to facilitate their on-going certification requirements. The purpose of this quantitative experimental study is to evaluate the effectiveness of three instructional methods (lecture, teacher-guided “e-learning”, and self-study take-home packets) and determine what method, if any, is most effective at promoting knowledge acquisition among registered nurses.

**Learning Activity:**

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<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
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<td>Which of the three instructional methodologies of lecture, teacher-guided electronic learning, and self-study take-home packets had the most effective influence on learner’s knowledge acquisition in a short-term professional learning experience.</td>
<td>As stated in the research of Roytek (2010), “instructional designers are increasingly called upon to produce higher quality instructional programs using ever more efficient methodologies” (p. 170). Imparting knowledge to students may entail using different instructional methods in order to achieve the best possible results. The reason for such is that students may respond differently to various types of instructional methodologies that might influence greatly their knowledge acquisition. The goal of the research was to distinguish which of three instructional methodologies (lecture, teacher-guided e-learning, and self-study take-home packets) most strongly supported knowledge acquisition of registered nurses required to take a short-term professional development course.</td>
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| Which teaching methodology -- lecture, teacher guided e-learning, or take-home packets result in the most knowledge acquisition by registered nurses in a short-term professional developmental class? | This research study sought to determine which of three teaching methodologies for knowledge acquisition worked best in a clinical setting. This contrast was done using a true experimental research design. The |
participants were registered nurses in a chest pain accredited hospital. Each cohort was randomly assigned to a different teaching methodology. An analysis of variance (ANOVA) was used to test for differences in knowledge acquisition. Because cost containment and nursing role complexity were factors that are increasingly affecting course development, this research study sought to understand the optimal method for presenting short-term learning material to registered nurses in a hospital setting. A true experimental study was considered to be the best design to determine which of the three instructional methods can best determine knowledge acquisition because it required the random assignment of nurses to one of the three instructional models thereby equating all possible confounding variables and allowing only the independent variable of the study, instructional model, to effect differences in knowledge acquisition.

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