

## Chapter 9

# Early Identification of Transformation in the Proficiency Level of Critical Thinking: In the Associate Degree Nursing Student

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### **ABSTRACT**

*Critical Thinking (CT) in the nurse graduate continues to be a topic of concern in the academic and acute care settings. Few studies focus on early evaluation of Critical Thinking Skills (CTS). The purpose of this chapter is to show how the non-experimental, explanatory, quantitative study, the Kaplan CTIT, was employed to determine if a transformation in the level of CTS occurs within the first semester of associate degree nursing students. Participants completed the pretest in the first three weeks of classes. Posttests were given after course finals. A significant transformation in the level of CT occurred. The estimated change in CT test scores was 2.04, with 95% confidence. Implications for early measurement of CTS in nursing programs reveals if teaching methodology is providing the necessary input for developing CTS or if evaluation and changes are needed.*

### **INTRODUCTION**

Incorporating and implementing critical thinking skills (CTS), regardless of individual ethnicity, cultural background or nursing position should be every entry level nursing student's goal in order to provide accurate and safe patient care (Romeo, 2010). Critical thinking (CT), allows an individual to face a challenge and systematically work out a solution for the best possible resolution (Paul & Elder, 2006). Learning CTS can be arduous. The task requires guidance, assessment, and evaluation of skills to ensure appropriate efficacy and outcomes. Continuous monitoring of CTS throughout the nursing program can support and ensure the student becoming licensed upon successful completion of an approved nursing program (Romeo, 2010).

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## ***Early Identification of Transformation in the Proficiency Level of Critical Thinking***

Achievement in the academic and patient care settings are diametrically affected by the lack of or inability of critical thinking (Oermann, Poole-Dawkins, Alvarez, Foster, & O'Sullivan, 2010). Consistent reporting of newly graduated nurses in the acute care setting stated a lack of adequate CTS (Oermann, et al., 2010; Romeo, 2010). While there is a superfluity of comparison between the beginning and end of nursing programs CTS competence, little research has addressed the thorough evaluation of CTS proficiency in the first semester of nursing school. Early identification of CTS proficiency or lack thereof should be addressed and student learning needs met to ensure the nursing graduate has the essential tools to function safely in the acute care setting. The topic of the study was early identification of transformation in CTS in the first semester of the associate degree nursing (ADN) student. The objectives of this chapter include illustration of: (1) proof that computerized pre and posttests are effective in measuring transformation levels of CT in the first semester ADN student; (2) identification of affecting attributes that influence CTS; and (3) evidence that early assessment of CT can enhance the promotion of CTS.

## **BACKGROUND**

Paul and Elder (2012) discussed the history and the roots of critical thinking, which was traced back to Socrates. Socrates challenged others by asking inquisitive questions in the attempt to prove or disprove individual claims of knowledge. It is important for the nursing student to understand the need for critical thinking and to have continuous growth of critical thinking in order to become a safe, effective nurse (Romeo, 2010). The Oklahoma Board of Nursing (Oklahoma, 2011) requires nursing programs to provide lecture, labs, and clinical experiences that facilitate the growth of or enhancement of CTS for the enrolled nursing student. While nursing programs provide the experiences as dictated by the nursing board, few new graduates adequately think critically in the acute care setting, despite the students' successful completion of the program and National Council Licensure Examination (NCLEX) to achieve licensure (Oermann et al., 2010).

Ensuring adequate growth in CTS may also affect student ability to provide safe, effective patient care (Romeo, 2010). Insufficient CTS may cause the new graduate nurse to miss an assessment and the identification of signs and symptoms regarding disease processes, which can further a hospital stay or even result in death. Evaluating the students' ability to think critically while in the nursing program continues to be problematic (Deschênes, Charlin, Gagnon, & Goudreau, 2011). In a 2000 study, Diede, McNish, and Coose indicated that new graduates barely met competencies required for the job according to nursing directors surveyed. The new graduate nurse continues to fall short in CTS despite the available studies that address the importance of having the ability to think critically.

## **THEORETICAL FRAMEWORK**

The theoretical framework utilized was the Roy Adaptation Model (RAM), which asserted that all aspects of life affect the learner (Roy, 2009). A change in the level of CTS would further the assertion of RAM that human systems are affected by the environment, which allows for adaptation that can affect decisions and reactions in future situations. Roy identified a system as a set of parts that rely on each other to function and experience feedback, control, outputs and inputs (2009). The culture of an individual can influence how the elements of the RAM become expressed (Roy, 2009). Culture can also guide

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