

MEASURING UNDERGRADUATE NURSING STUDENTS' REFLECTIVE THINKING AND CRITICAL REFLECTION SELF- EFFICACY FOLLOWING HIGH FIDELITY SIMULATION: A PILOT STUDY

Naomi Tutticci, BN, M Ed.Studies

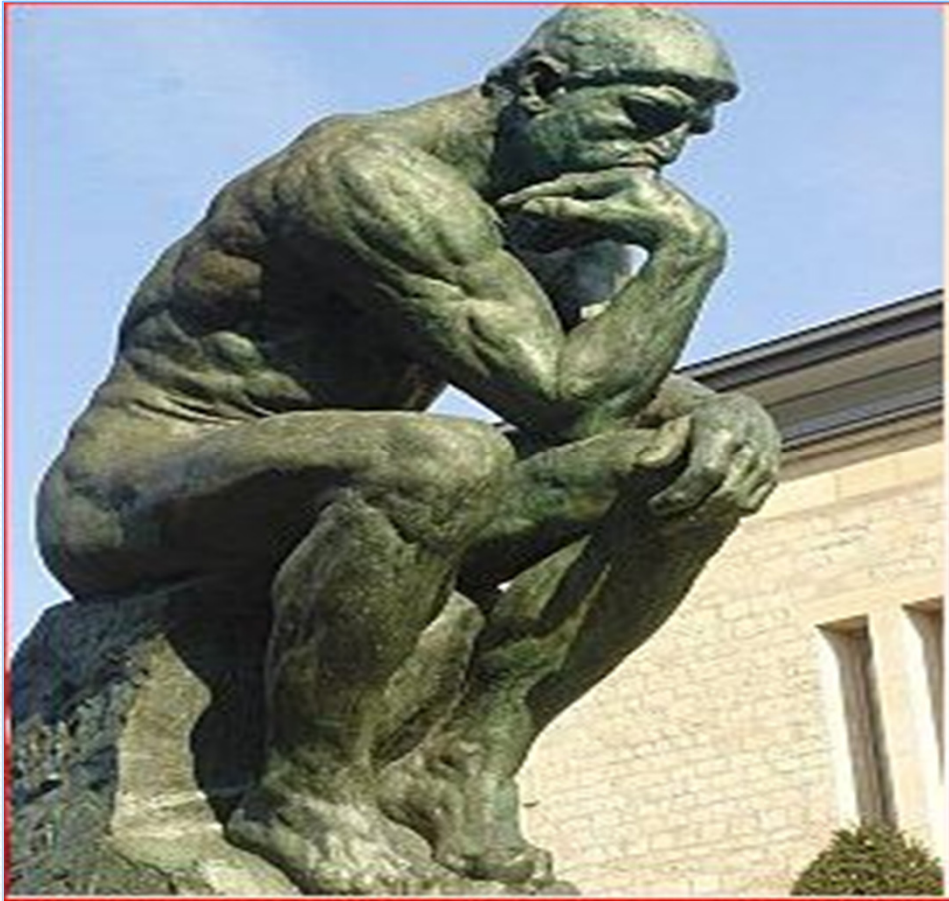
Associate Professor Peter A. Lewis, BN Cert.CC MN.Ed PhD

Professor Fiona Coyer, RN, PGCEA, MN, PhD

QUT

Queensland University of
Brisbane Australia

How to become a reflective giant



It's not so much of
a mystery.....

What does the literature say?

- Critical thinking = essential graduate generic skill (Facione & Facione, 1996)
- Critical reflection = metacognitive skill, underpinning critical thinking (Gul et al., 2010)
- HFS can enhance critical thinking, clinical skill performance and knowledge acquisition (Lapkin et al., 2010)
- HFS builds confidence (Jefferies & Rizzolo, 2006)
- Self efficacy important to evaluate in simulation context (Sinclair & Ferguson, 2009)

Where's the gate?

Lack of instruments to measure:

- reflective thinking and its extent, after HFS
- self-belief about one's capacity to critically reflect





Study questions

The research questions were:

- 1) Does the Reflective Thinking instrument and Critical Reflection Self-Efficacy VAS demonstrate content validity?
- 2) What is the reliability of the Reflective Thinking and Simulation Survey?

Research design

This pilot study is divided into two phases:

- Phase one
 - individual 'think aloud' sessions
 - expert panel to address the validity measures:
 - the reflective thinking instrument and
 - critical reflection self-efficacy visual analogue scale (VAS).
- Phase two
 - post-test only design

Setting and sample

- Metropolitan Australian university's school of nursing offering:
 - a Bachelor of Nursing (BN) program and
 - three double degrees
 - nursing/behavioral science
 - nursing/paramedic science
 - nursing/public health
- HFS laboratories located onsite
- August - September 2014

Instrument

The phase two survey was comprised of 5 instruments, demographic questions and an open-ended question.

1. Reflective Thinking instrument (Kember et al., 2000)
2. Critical Reflection Self-efficacy Visual Analogue Scale
3. General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995)
4. The Educational Practices in Simulation Scale (Jefferies and Rizzolo, 2006)
5. Satisfaction with Simulation Experience Scale (Levett-Jones et al., 2011)

Procedure

Phase one

- Individual 'think aloud' sessions
- Content validation by expert panel:
 - 6 academics
 - Expertise in HFS, curriculum and instrument design and international students



Procedure

Phase two

- Electronic surveys - an online link using Key Survey v 8.2
- Survey remained open for two weeks once the final clinical subject's simulations had been completed

Data analysis – phase one & two

Phase one

- Verbatim comment analysed and grouped
- Items commented on and rated by expert panel
- Content Validity Index (CVI) or S-CVI/Ave

Phase two

- Internal consistency using Cronbach's alpha
- Verbatim comments analysed and grouped

Results – phase one

‘Think Aloud’

- 6 students (5 female/1 male)
- Responses sorted into three groups
 1. ‘thinking reflectively’
 2. Simulation equates to clinical practice
 3. Simulation specific
- Overall simulation considered a type of clinical practice

Expert Panel

- S-CVI/Ave = 0.90
- No items rejected by panel – comments resulted in eight changes to items

Results – phase two

Fifty eight third year students (25%) participated in phase two Reflective Thinking instrument - internal consistency:

- Habitual action .701
- Understanding .682
- Reflection .608
- Critical reflection .808

Critical Reflection Self-Efficacy VAS and General Self-Efficacy

- small to medium positive correlation ($r = .324$, $n = 56$, $p = .048$)

Discussion and the benefit of hindsight

- Content valid and internally consistent instruments
- Measure reflective thinking and self efficacy
- Transferability of competence from simulation to real clinical practice
- Simulation type of clinical practice
- Scale missing 'not applicable'
- Small to medium correlation

What I wouldn't have done then, knowing what I know now!

- Removal of item 3

Thank you and questions



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