A Metacognitive Learning Strategy that Guides Intentional Learning and Reflection in Nursing Education

Susan Grinslade, PhD, RN, PHN-CS, BC
Theresa A Winkelman, MS, RN, CPNP
Linda L. Steeg, DNP, MS, RN, APRN-BC
Penelope W. McDonald, PhD, MSN, BSN, RN
University at Buffalo School of Nursing
Carol M. Van Zile-Tamsen, PhD, EdM, BS, BA
University at Buffalo Center for Educational Intervention
Marie Larcara, EdD, MSEd
University at Buffalo, Consultant
A Metacognitive Learning Strategy that Guides Intentional Learning and Reflection in Nursing Education
Susan Grinslade, PhD, RN, PHN-CS, BC
Carol M. Van Zile-Tamsen, PhD, EdM, BS, BA

• Purpose

• Participant Engagement KWLA+R©
How to Use the KWLA+R©

K
What do I know? How do I know what I know?

W
What do I want to learn?

L
What did I learn? What do I still want to learn?

A
How will I apply what I have learned to:

Reflect on the meaning of what you have learned and how it will impact your practice/teaching/education?
The Constructivist Theory of Learning

Assimilation

Learning

Accommodation
Metacognition

- Learning
- Assimilation
- Accommodation
Components of Metacognition

- Self-Knowledge
- Self-Assessment
- Self-Regulation
Promoting Metacognition

• Modeling (Instructor/Peer)
• Scaffolding (Instructor/Peer)
• Focusing Attention on External Feedback and Assessments
• Encouraging Critical Reflection and Self-Questioning
KWLA+R©

A Strategy to Promote Intentional Learning Across Nursing Programs

Theresa Winkelman, MS, RN, CPNP
Evolution of KWL

Ogle (1986) strategy to facilitate reading comprehension elementary education

Secondary and post-secondary education

Adoption and Expansion at University at Buffalo School of Nursing
Rationale for Adoption

• Cognitive learning “Think about Your Thinking”
• Intentional
• Critical Reflection (Dewey, 1933; Tanner, 2006; Benner, Sutphen, Leonard, & Day, 2009)
• Metacognition connection to clinical reasoning and judgement
Why is KWLA+R© Unique?

- Directional
- Intentional
- Individual learning is maximized
- Flexible
Application across Programs

- Pre-requisite nursing courses
- Undergraduate - traditional
- Undergraduate - RN-BS
- Graduate
Next Steps

- Simulation
- Clinical preparation and post conference
- Exam preparation
- Quality Improvement
Assessing Metacognition

Indirectly:
- ✓ Achievement
- ✓ Self-Report Measures

More Directly:
- ✓ Think-Aloud Protocols
- ✓ Written or Verbal Reflections
Evaluation of a Teaching Strategy Aimed at Improving Metacognitive Learning in Nursing Students

Interpreting the meaning of the learning associated with ‘thinking about thinking’

Penelope W. McDonald, PhD, RN
Assessing Metacognition

Our assumption is that the Application and Reflection portions of the KWLA+R© will provide a written expression of the metacognitive and meta-affective learning that has taken place and will reflect the influence that learning will have on the individual’s view of self in the world.

Heideggerian Hermeneutic interpretive approach is an appropriate methodology for examining reflections from a sample of courses in which it has been used.
“Reflect on the meaning of what you have learned and how it will impact your practice?”

Exemplars of KWLA+R were selected from several courses at different levels of the curriculum.
Exemplars were de-identified, and their tests were the data for analysis.
Goal of analysis was to discern the metacognitive/ meta affective learning taking place as a result of the reflection on the learning in the course/ assignment.
Identified Themes

Transferring context of knowledge
  • “I had to catch myself ...and explain [concepts] in an easy way for someone to understand. This directly helps me be a better nurse...[reminding] me of what I need to do when educating patients”

Becoming Empowered
  • “I will bring change to my [work] environment with the confidence knowing that I can make a difference.”

Shifting Attitudes
  • “It’s easy to become jaded in our line of work....I will look at these patients of mine differently and will not subconsciously judge them... I will try to advance them...I will inform and encourage...not push and judge...I’ll be a resource and not a judge.”
Limitations

• Limited sample

• Findings may not be generalizable to other situations or populations

• No way of correlating findings with other assessments

• No way to evaluate from this study if metacognitive learning will transfer to other settings or program outcomes
How to Use the KWLA+R©

K
What do I know? How do I know what I know?

W
What do I want to learn?

L
What did I learn? What do I still want to learn?

A
How will I apply what I have learned to:

Reflect on the meaning of what you have learned and how it will impact your practice/teaching/education?
Questions & Discussion