



# **Designing a blended authentic learning environment for graduate students in nursing to carry out research studies**

**Yanika Kowitlawakul**

Alice Lee Centre for Nursing Studies  
National University of Singapore

**Soong Swee Kit, Alan**

Centre for Development of Teaching & Learning  
National University of Singapore



# Objective of the presentation

- To share how a blended learning environment has been designed

## Intention of the project

- To close the gap in research knowledge and skills among graduate nursing students in Singapore
- Blended authentic learning environment is adopted in designing the module, with the aim to promote deeper learning



# Nine elements of authentic learning environment (Herrington, Reeves & Oliver, 2010)

- Authentic context
- Authentic activity
- Expert performances
- Multiple perspectives
- Collaboration
- Reflection
- Articulation
- Coaching & scaffolding
- Authentic assessment

# Authentic context

## Characteristics

- A physical or virtual environment that reflects the way the knowledge will be used in real-life
- A design to preserve the complexity of the real-life setting
- Provides the purpose and motivation for learning
- Ideas can be explored at length in the context of real situations

## Re-designed module

- A combination of face-to-face and online environment
- Face-to-face: Working with the supervisor, principal investigator and clinical research team members
- Online: Learning management system to access an online module with content on various aspects of research.
- Self-directed approach within a 12-month duration



# Authentic tasks

## Characteristics

- Tasks and activities that have real-world relevance
- Clear goals and real-world relevance
- Require production of knowledge rather than reproduction
- Complex and ill-defined
- Completed over a longer period

## Re-designed module

- Students are expected to conduct & complete a research study, and submit a thesis
- Time-frame: 12 months

# Expert performance

## Characteristics

- Access to expert thinking and the modelling of processes
- Access to the way an expert would think and act
- Access to learners in various levels of expertise
- Opportunities for the sharing of narratives and stories

## Re-designed module

- Access to supervisors – qualified researchers
- Access to site principal investigators – clinical expertise/specialist.
- Access to clinicians – e.g. nurses, nurse educators, physicians involved in the research project
- Opportunities to share at seminar presentations and learn from each other experience

# Multiple perspectives

## Characteristics

- Different perspectives from different points of view
- Not just a single perspective – such as a textbook
- Powerful search tools enable range of views
- Different points of view on a critical incident

## Re-designed module

- Through literature review, students are required to look at multiple perspectives to formulate the research question(s)/ hypothesis and identify knowledge gap(s)
- Online self-accessed module enable students to walk through the process at their own pace
- Discussion with supervisor and principal investigator

# Collaboration

## Characteristics

- Teams or pairs rather than individuals
- Collaboration encouraged through technology
- Tasks addresses to groups, not individuals

## Re-designed module

- Students are required to work in groups of 3 to 5, as part of a research team.
- Each group uses *Dropbox* to share resources
- Hospitals collaborate with educational institutions through *Research Online Administration & Management (ROAM)* System
- Opportunity to use *Domain Specific Review Board (DSRB)* online system





# Articulation

## Characteristics

- Opportunities for students to speak and write about their growing understanding
- Public presentation of argument to enable defence of position and ideas

## Re-designed module

- Students are provided opportunities to present at a scheduled seminar presentations
- They are expected to publish their work, based on the project.



# Reflection

## Characteristics

- Opportunities to make choices
- Not quiet and solitary – can be a two-way process
- Opportunities to reflect in online and mobile journals and diaries

## Re-designed module

- Reflective journal – part of the assignment (20%)
- Opportunities to discuss (two-way process) with:
  - (a) supervisor and principal investigator
  - (b) teams during seminars

# Scaffolding

## Characteristics

- No attempt to 'transmit' knowledge
- Teacher's role is supporting rather than didactic
- Support where more able partners can assist

## Re-designed module

- Online self-accessed module provides one form of scaffolding for learning
- Support provided by supervisor and site principal investigator of the project
- Progress reports at different phases of the project

# Authentic assessment

## Characteristics

- A design to preserve the complexity of the real-life setting
- Provides the purpose and motivation for learning
- Ideas can be explored at length in the context of real situations

## Re-designed module

- Thesis – drafts, double blind marking for constructive feedback
- Reflective journals



## What's next?

- In the midst of developing the revised module
- Scheduled to be rolled out in July 2014
- Study on the impact of the redesigned module on students' learning outcomes



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