The Impact of Multi-user Virtual Environments on Student Engagement
Faith Claman, DNP, RN, WHNP-BC, CPNP

Benefits of Online
• Cost and access
• Diverse student cohort
• Global opportunity for nurse educators with expertise to deliver content.

Background
• “Millennials” or “Generation Y’s” are techno-savvy.
• Online learning is a global issue.
• Online learning benefits Nursing education.
Online Education Globally

• US: 7 million students
  – Focused on undergraduate studies

• Worldwide
  – Fast growing markets
  – Open Education Europa
  – Growing Markets and other “plugged in” continents

• MOOCs

Online Delivery Options

• Asynchronous web-based learning
  – Reflective inquiry, self-paced.
  – Static.
  – Lacks presence.
  – Reduced overall satisfaction and perceived learning in educational experience.

• Synchronous web-based learning
  – 2D and 3D
  – Visual, real time, student-centric learning.
  – Immediate feedback and remediation.
  – Beneficial, satisfying and facilitates understanding of course content in nursing education.

Asynchronous Example
2-D Synchronous Example

2-D Synchronous

3-D MUVEs

- Multiuser Virtual Environments (MUVEs)
  - Immersive learning environment.
  - Dynamic synchronous platforms with personalized avatars.
  - Interact through verbal and non-verbal communication.
  - Concurrent breakout sessions; student to student options
Virtual Example

Theoretical Framework

Aims

• User friendly innovative pedagogic strategies that respond to experiential and diverse learning styles.

• Novel approach to graduate nursing instruction that increases student engagement using an innovative synchronous platform.

• Constructivist learning, socialization, exploration, discovery, and creativity.
Methods

• Quasi-experimental two group post-test only.
• Convenience sample (n=21)
• Asynchronous and synchronous learning platforms:
  – VenueGen
  – Blackboard™
• Identical content.
• Community of Inquiry Survey
  – (Cronbach’s $\alpha = 0.91 - 0.95$).

Results

Results

Results
Discussion and Implications

• Synchronous instruction using MUVEs increases student engagement.
• Increase in student engagement appears to be primarily though the cognitive element of presence.
• Students may benefit by using MUVEs in curricula.

Study Limitations

• Sample and design
• Platform familiarity over time
• Hardware and connectivity issues

Conclusion

• Next Steps
• Embracing the digital age of nursing
References


