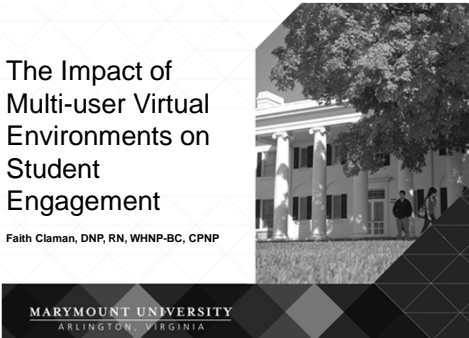


The Impact of Multi-user Virtual Environments on Student Engagement

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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



(Community of Inquiry, <http://communitiesofinquiry.com/model>)

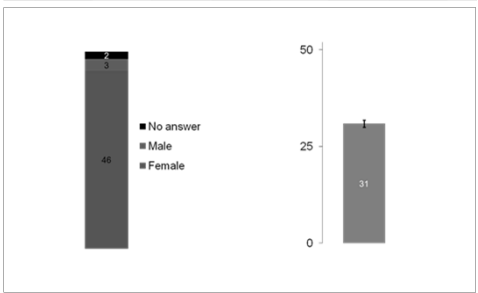
Aims

- 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.

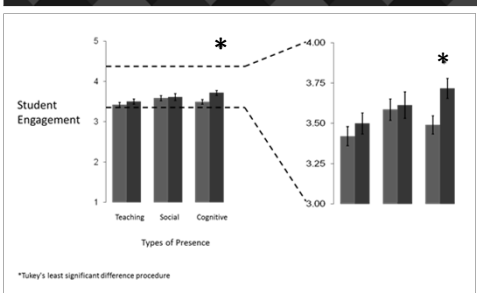
Methods

- 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



Discussion and Implications

- Synchronous instruction using MUVes increases student engagement
- Increase in student engagement appears to be primarily through 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

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