"Evaluating Interactivity Design in the Context of Technology Enhanced Learning; an Overarching Case Study Methodology integrating Anecdote Circles and Surveys as Methods of Inquiry for Nursing Curricula."

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Background Literature…

- Response to educational reform / needs led curriculum design and new and innovative pedagogic approaches (Tsiotakis and Jimoyiannis, 2016)
- The relative complexity of the curriculum and the critical level, timing, collaboration and interaction amongst academic and clinical staff and their students has become increasingly important (Duncan- Howell 2010)
- VLE platforms and learning technology permits authenticity/flexibility an most importantly an opportunity to personalise opportunities for teachers to interact and communicate with one another (Chieu and Herbst, 2016)
- Co-construction of knowledge by means of fostering and advocating social interaction (Chen, 2012).
- Relationships and patterns between points of interactivity online provide an insight into behavioural activity and level of engagement, highlighting the characteristics and the potential for limitation of student online learning activity (Lee and Bonk, 2016).

Social Constructivist Philosophical Underpinnings

- Ethos of Inquiry Based / Problem Based Learning
- Work-based Experiential and Situated Learning
- Integration of theoretical underpinning with applied nursing practice at the front line of person centred care provision.
- Building on existing experience and using scaffolding (Vygotsky 1978) to frame and develop competence and progression to mastery.
- Constructively aligned with assessment driving processes of teaching and learning.

Contextual Background - Needs Led Curriculum Design

- What is the Nurse Navigator System?
- Why was it designed?
- How is it different?
- Potential pitfalls of design
- Potential for development and pedagogic integration?
- Scoping exercise
- Ongoing evaluation

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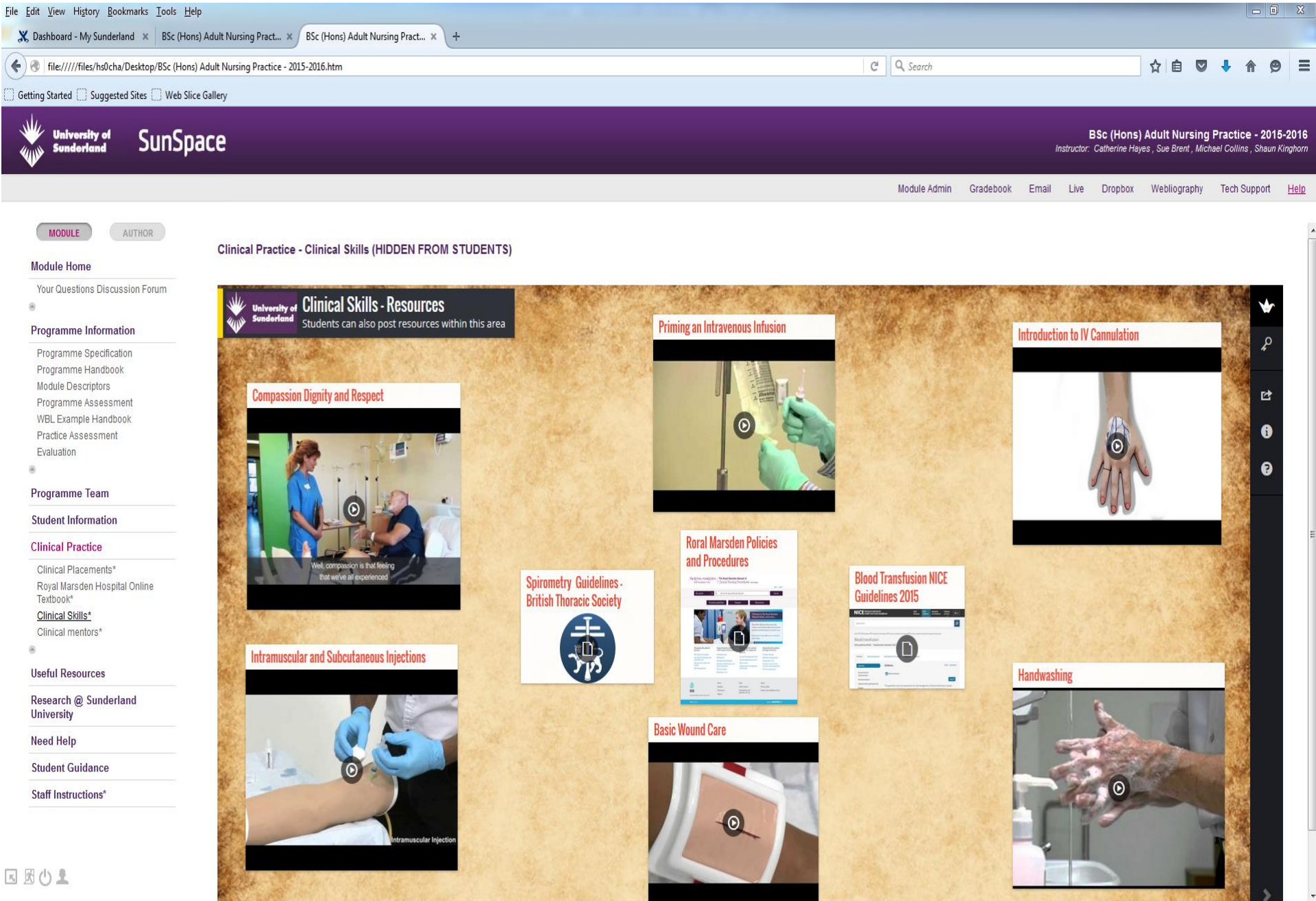
The Nurse Navigator System; Practical Usage



Using IT to support a Philosophy and Ethos

'Education Transforming Care'

- Using technology and strategic pedagogic design to simultaneously drive **human relationships** at the heart of both the ***patient*** and ***student*** experience

- Driven by an ***integrated curriculum***

- Designed to maximise the potential of student nurses to simultaneously be ***functionally competent, authentically caring*** and ***workforce ready***

Driving and Embedding a Web of Social Communication to facilitate Working Relationships

Sign-Off Mentors

Programme Leader

Clinical Link Tutor

Simulation / Clinical Skills Leads

Programme Leader

Patients / Families and Carers

PCPI Leader

Module Leaders

Clinical Mentors

Nursing Students

Academic Administrative Staff

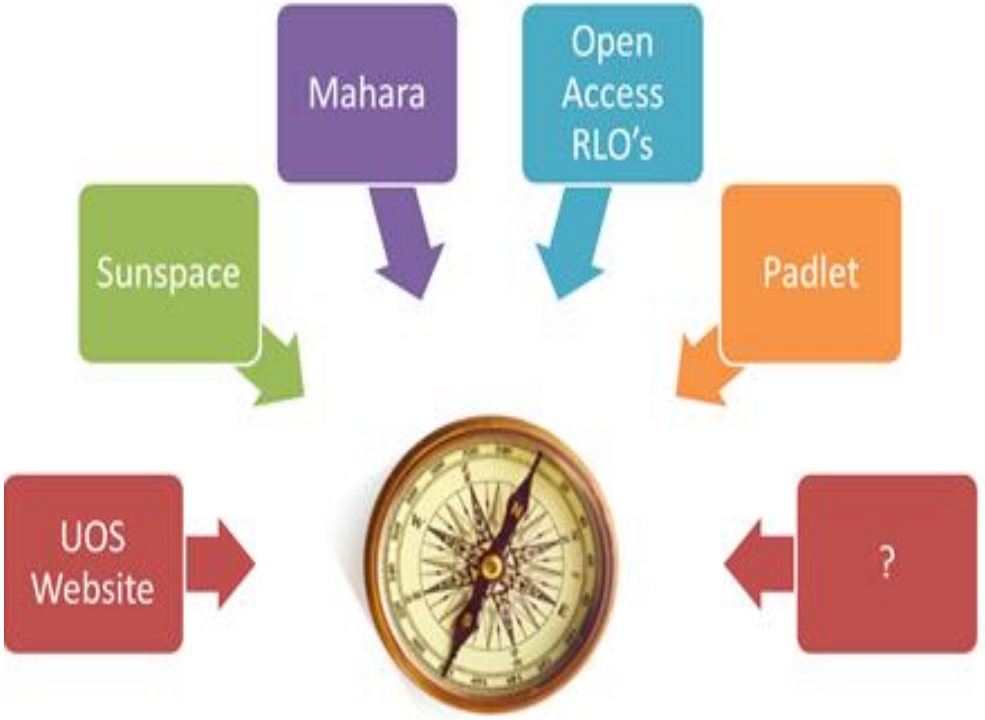
Integrating and Embedding Constructivist Learning Theory

Critical Interactivity Design

Strategically focused on three key areas:

1. **Learner/People Interactivity**
2. **Learner Interface**
3. **Learner Content**

Embedding the opportunity for ongoing evaluation and the co-construction of new knowledge with students/academics and clinicians.



Driving Specific Learning Objectives

Personalising approaches to student learning within and between clinical and academic contexts is a fundamental mechanism for increasing levels of communication and social interactivity; driving:

- Critical Reflective Capacity
- Opportunities for the Co-construction of New Knowledge
- Live and Dynamic Evaluative Capacity for the Extant Curriculum
- Establishment of Communities of Practice within and between all Interprofessional Learning Contexts across this Degree Pathway

Introducing Anecdote Circles….

- Anecdote circles were adopted as a deliberate alternative to focus groups for this pedagogic research project (Ali, 2014; Lugmayr et al, 2016).
- Little documented in the context of pedagogic research, they appeared to offer a means of authentic informality where students could voice their opinions inclusively and honestly in a manner which reflected the ethos of the Nurse Navigator System (i.e. social interactivity).
- The issue of the researchers also being teachers of the students meant that this approach could be conducted with a degree of authenticity and credibility that otherwise would have been tokenistic.

Outcome of Mixed Methods Evaluation

1. Impact on the progressive development of student psychomotor competence and functional skills
2. Impact of the NNS on their collaborative social learning was significant in terms of it being readily comparable to existing social networking sites.
3. Perceived immediacy in the facilitation of critical reflective practice
4. Contribution to learning gain depends on how the system is used to harness human interaction rather than bureaucratic processes of programme administration.
5. Lack of regular accessibility to the system on clinical placements is a huge barrier to use.
6. Regular use of the NNS was associated with a greater degree of student engagement with the programme and interactivity within the cohort.

Build a Navigator App…?

- Curriculum Development and Student Co-Construction around the NNS means that the next stage of development of the NNS should be its conversion to an APP
- Facebook is still perceived as the alternative to the NNS
- Accessibility is the major issue for address
- Formalised facilitation of the NNS is lacking with 80% of students still unaware of how to readily access the system on the VLE

References

- Ali, I. (2014). Methodological approaches for researching complex organizational phenomena. Informing Science: the International Journal of an Emerging Transdiscipline, 17, 59-73.
- Chen, W. C. (2012). Professional growth during cyber collaboration between pre-service and in-service teachers. *Teaching and Teacher Education*, *28*(2), 218-228.
- Chieu, V. M., & Herbst, P. (2016). A study of the quality of interaction among participants in online animation-based conversations about mathematics teaching. *Teaching and Teacher Education*, *57*, 139-149.
- Duncan-Howell, J. (2010). Teachers making connections: Online communities as a source of professional learning. *British Journal of Educational Technology*, *41*(2), 324-340.
- Lee, J., & Bonk, C. J. (2016). Social network analysis of peer relationships and online interactions in a blended class using blogs. *The Internet and Higher Education*, *28*, 35-44.
- Lugmayr, A., Sutinen, E., Suhonen, J., Sedano, C. I., Hlavacs, H., & Montero, C. S. (2016). Serious storytelling–a first definition and review. Multimedia Tools and Applications, 1-27.
- Tsiotakis, P., & Jimoyiannis, A. (2016). Critical factors towards analysing teachers' presence in on-line learning communities. *The Internet and Higher Education,* 28, 45-58.
- Vygotsky, L. (1987). Zone of proximal development. *Mind in society: The development of higher psychological processes*, *5291*, 157.

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Case Study

Thanks for Listening

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