

Collaborative design of a virtual community: engaging students through online simulation

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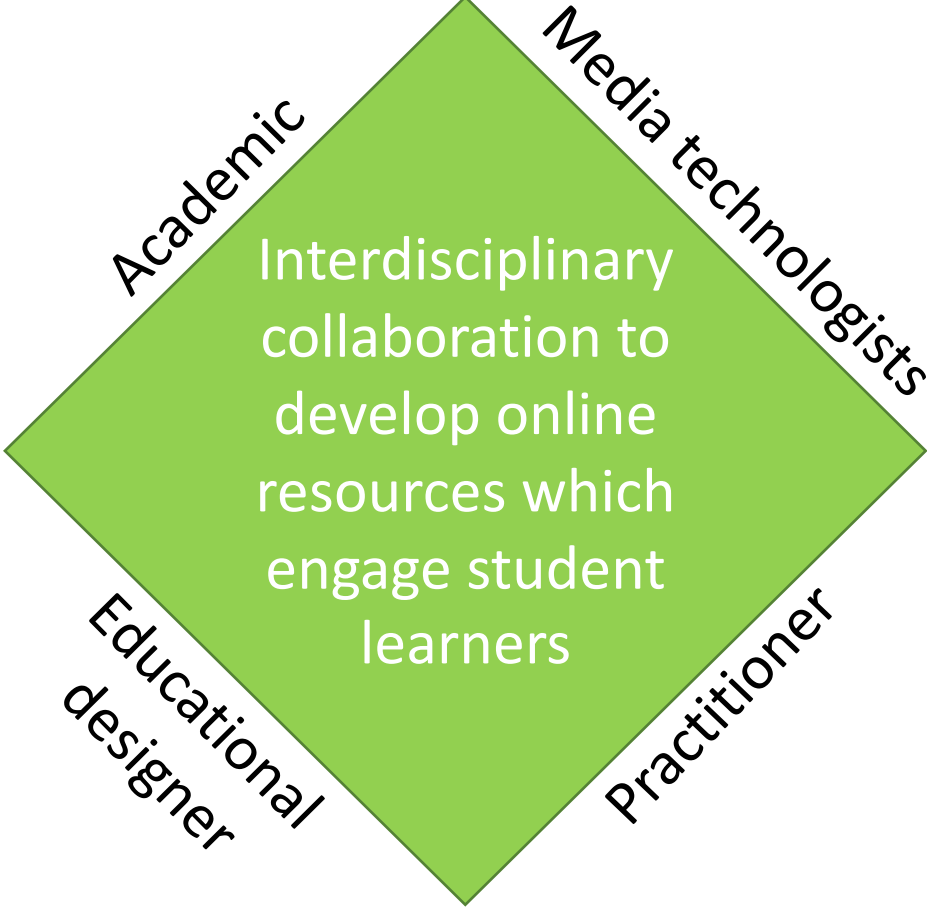
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History and context for the project

- Starting point was a final year subject in the B Podiatric Medicine
 - POD404: Complex cases in podiatric practice
- This subject comprised four 'complex' paper-based scenarios; students studied online whilst undertaking clinical placement
- Purpose of the scenarios was to stimulate clinical reasoning, facilitate online discussion which linked theory to practice, and to enable peer review
- The level of student engagement was highly variable
- Paper-based scenarios have their limitations!



Animations
created for two
of the 'complex
cases' to
provide
students with a
visual narrative

U!magine project grant

Development of
a virtual
community with
multiple
scenarios in
different
places and
spaces




Sample of proforma used for development of the AV resources

Scenario 2 Aaron + Yasmin	Video clip	Supporting information/resources to scaffold the video clip	Location in the community
Description of development	0.37-3.32	<ul style="list-style-type: none"> • Autism Spectrum Australia https://www.autismspectrum.org.au/ • Aspect Riverina School https://www.autismspectrum.org.au/school/aspect-riverina-school-0 • Dog helps boy come out of Autism – a friend like Henry https://www.youtube.com/watch?v=vJSu3G0U5SY 	Aaron's home
Impact for brother	5.28-7.04	<ul style="list-style-type: none"> • Being an Autism sibling https://www.youtube.com/watch?v=LsJBhuyq6zQ • Autism Spectrum Australia – how siblings can help https://www.autismspectrum.org.au/content/how-siblings-can-help • Siblings Australia http://siblingsaustralia.org.au/ 	Aaron's home
Support services and therapy Sensory gym	12.57-14.29 36.00-37.21	<ul style="list-style-type: none"> • Overlay Yasmin's audio on the video of Aaron playing in his sensory gym (RF) • Creating a sensory integration gym in your home http://ezproxy.csu.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=104195987&site=ehost-live 	Aaron's home
Using the Wii	32.51-35.57	<ul style="list-style-type: none"> • Autism Research Institute: sensory integration http://www.autism.com/symptoms_sensory_overview • Autism Research Institute: toe walking http://www.autism.com/symptoms_toe_walking • Using innovative technologies as therapeutic and educational tools for children with Autism spectrum disorder http://ezproxy.csu.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=104802716&site=ehost-live (CR to order copy from the library – not available online) 	Aaron's home


Four scenarios have been developed for this pilot virtual community

ilot/index.html

Dick lives in a ground floor unit which gives him easy access to the street. He uses a wheelee walker when he goes out to improve his mobility and to reduce the risk of falling.



Floor plan




Windows taskbar: O, P, W


a/Pilot/index.html

Stewart - Case study 2

Stewart describes other people's experience of his dysphasia: 'people think I'm slow ... but I'm not ... it just takes a while to get from there [brain] to here [mouth]'.



In order to re-establish his independence, Stewart had his car modified and underwent the long process of regaining his driving licence through Vic Roads.




Windows taskbar: O, P, W

/Pilot/index.html


Danny - Case study 3

This is Danny's story. His Mum Robyn was in labour for 20 hours and after a complicated delivery, Danny was asphyxiated at birth. As a treatment for the seizures that developed soon after birth, Danny was given potent psychotropic drugs which made him a 'zombie child' who was never awake. Seeking alternative therapy (naturopathy and conductive education) for Danny in the late 1980s, brought Robyn into conflict with the doctors.



'Children with brain injury but they've never been on the neurological ward'. Robyn talks about the attitude of some doctors to brain injury.



Her story illustrates the power of advocacy in the face of a healthcare system that was poorly equipped to care for a young adult with brain injury.



Windows taskbar: O, P, W

/Pilot/index.html

Aaron loves to play with the Wii and shows an amazing level of concentration and coordination when he's following the dance moves. Toe walking in children aged 5 or older is often associated with neurological immaturity and may be related directly or indirectly to a visual-vestibular problem.



Windows taskbar: O, P, W

The purpose of this virtual community is to facilitate student-focused learning, foster critical thinking and to enable opportunities for inter-professional learning. In the context of Community Health, students may interact with the scenarios to determine a clients' health needs and goals, evaluate facilitators and barriers to improved health experiences, and analyse ways in which they could provide support or services.

Students can interact with the media resources at their own pace, using their own sense of logic. It is intended that academics will link to this web resource through subject i2 sites, in order to scaffold the specific purpose of the students' learning experience.

The design of Riverina Shore has been planned carefully to enable intuitive navigation around the community, to stimulate the students' curiosity and to ensure easy access to linked online resources. The website is accessible through mobile devices to maximise functionality.

<https://interact2.csu.edu.au/bbcswebdav/orgs/O-riverina-shore-beta/Pilot/index.html>

Preliminary evaluation of Riverina Shore

- Survey to undergraduate students
- Survey to academics and practitioners

Table 1: Number of participants completing a survey

	Allied HA	Dentistry	Dietetics	Nursing	Occ Therapy	Physiotherapy	Podiatry	Speech Path	
Students	2		1	9	3	4	8	2	29
Academics + practitioners		1		4	3	2			10

Table 2: Interaction with the virtual community

	Device used		Level of intuitive use		
	Tablet	Computer	Very	Somewhat	Not at all
Students	21	6	13	11	0
Academics and practitioners	7	2	2	7	1

Preliminary evaluation of Riverina Shore

Table 3: Viewing the four scenarios with the perceived purpose (students) and potential purpose (academics and practitioners) for using this resource

	Scenarios viewed				Purpose for using the virtual community				
	Aaron	Danny	Dick	Stewart	Increase knowledge of specific conditions	Increase knowledge of multiple factors influencing health	Improve skills in problem solving/clinical reasoning	Extend understanding of IPP	Extend knowledge of scope of practice of HPs
Students	27	26	26	27	13	21	12	17	13
Academics + practitioners	5	3	5	6	7	9	8	5	6
	32	29	31	33	20	30	20	22	19

Student interaction with the virtual community and what they learned from working with the client scenarios

'Learning' themes

- Seeing people outside of a clinic setting/in the community/in a social setting
- Seeing the bigger picture for a client
- Looking behind the scenes at what a person/family/carers are dealing with
- Realising the physical/psychological/emotional/social impact of a condition on the person/family/carers/community
- Seeing opportunities for IPP
- Realising the positive impact of IPP on the person/family/community
- Realism

Seeing opportunities for interprofessional practice

It was easy and engaging, much better than getting a plain sheet of paper with the case information

Simple design, clear and concise

Mirrors real-life situations

Looking behind the scenes at what a person/family/carers are dealing with

Preliminary evaluation of Riverina Shore

Table 4: Academics and practitioners thoughts about using this online resource in their teaching

Teaching purpose	Number of respondents
<ul style="list-style-type: none"> To facilitate synchronous online discussion 	0
<ul style="list-style-type: none"> To facilitate asynchronous online discussion 	1
<ul style="list-style-type: none"> To facilitate discussion during an on-campus teaching session 	4
<ul style="list-style-type: none"> To facilitate students' self-directed study 	4
<ul style="list-style-type: none"> To scaffold learning with direct relevance to a specific assessment task 	7
<ul style="list-style-type: none"> Other 	<ul style="list-style-type: none"> To present a specific case study and highlight interprofessional discussion points To expand on current learning opportunities being experienced on clinical placement Used as part of orientation to placement e.g. pre-reading To increase awareness of the impact of conditions on the family/carers To create person-centred care and individualised care plans

Table 5: Good features of the virtual community and suggested improvements

	Good features	Suggested improvements
Students	<ul style="list-style-type: none"> • Reality • Other people’s perspectives • Variety of community members and their needs • Simple design, clear and concise • Accessible resources • Interactive and fun • Visually appealing • Highlights IPP and facilitates inter-professional learning 	<ul style="list-style-type: none"> • Add more labelling to the home page • Scaffold the scenarios to add more detail and structure • Include more information about and from a range of health professionals • Enable easy backwards navigation • Extend the community – people, places, spaces and resources
Academics and practitioners	<ul style="list-style-type: none"> • Authenticity • Link between person, family and environment • Illustrates a person’s capabilities • Diverse applications 	<ul style="list-style-type: none"> • Requires contextual detail • Include discussion prompts/questions to facilitate student learning • Include hospital scenarios • Navigation requires attention

Potential use of Riverina Shore: Master of Nursing

- **NRS532: Health Assessment for Advancing Nursing Practice**
- Rachel Rossiter is interested in using Dick's scenario with students in the Masters of Nursing (registered nurses studying online)
- Students will view the scenario from the perspective of a community nurse who is following up after Dick's GP has contacted the Community Health Centre because Sandra (Dicks' wife) is to be admitted for unavoidable surgery next week. Given that she is Dick's primary carer and there are no community support services in places, she is very concerned about what will happen to Dick in her absence
- Students will be asked to undertake an assessment with the information provided thus far and identify what additional information will be required for them to put in place a plan of support for Dick while Sandra is in hospital.

The student's identification of additional information required, will assist us to further develop Dick's story further for the next iteration of Riverina Shore in relation to this particular person's story.

Potential Use of Riverina Shore: B Physiotherapy

- Problem Based Learning is integrated across all three years of the course
- All of the scenarios present valuable resources for scaffolding learning related to chronic health conditions, complexity of conditions and critical thinking
- Effective online learning resource for developing understanding of inter-professional practice; in particular pre-clinical placement at the end of year 2 and then feed forward to reflection of similar case scenarios in year 3
- Provides authentic scenarios which allow students to discuss, plan and manage real and ongoing lifelong challenges
- Prepare students for WPL capabilities across a spectrum of biopsychosocial issues
- Scenarios can be accessed online, outside of the classroom, to develop peer to peer engagement through forums, group discussion and best-practice solutions

