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Students co-creating curriculum: navigating complexity and uncertainty

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Engaging students in curriculum has the potential to enhance student agency, authentic learning and hence effective preparation for work in an ever-changing world. However, curriculum design is often bounded by the complexities of professional requirements and academic priorities and expectations, without consideration to what students might contribute to the process. Processes which bridge these boundaries and encourage student engagement are needed to facilitate graduate capabilities.

This project investigated ways to interrogate student involvement in the curriculum and enhance their agency as learners. In the context of a Bachelor of Nursing (BN) program, the aim was to develop a practice model for engaging students as co-creators of curriculum. Action research was utilised to engage students in exploring their curriculum and their location as learners and partners. Students reflected on their recent work integrated learning (WIL) experience and identified sentinel learning experiences and practice development needs. Students then worked with the project team to discuss ways to enhance WIL preparation in the undergraduate BN curriculum.

In phase one, students reported being well prepared for basic care skills and communication in the workplace environment. Students reported feeling underprepared for challenging professional behaviours and for confronting clinical situations such as death. In phase two, students’ workshopped solutions in the form of student narratives or real life stories that they could produce and embed in curriculum and opportunities to harness real time support via mobile communication tools. The activities and results informed a guided process to involve students in creating and interacting with their curriculum.

Keywords: co-creators, authentic learning, student engagement
Future graduates need to be ready to meet challenges of complex professional environments in an uncertain global context. This reality presents challenges for higher education to foster learning and to produce graduates who are workforce ready and industry capable (Billett, 2014; Hearle & Cogger, 2011). A recent study into nursing workforce productivity and retention identified “effective preparation for practice” as one of three key issues facing industry (HWA, 2013), and this situation is not unique to nursing and midwifery. Preparation for practice which embeds authentic learning and collaboration are aspirations for lifelong learning and elements of the learning environment that are needed to engage students to meet professional and personal challenges (McLennan & Keating, 2008; Litchfield, Frawley & Nettleton, 2010).

Students appreciate practice and action orientated learning which they perceive as relevant to future professional goals (Jeffreys, 2012). Authentic learning is a pedagogical approach that is centred on rich, real world, immersive and engaging tasks (Herrington & Herrington, 2006, 2007) and typically focuses on complex problems and their solutions. Authentic learning experiences support higher education students to develop a sense of identity and the ability to identify with a future career or professional trajectory (Temmerman, Noble & Danaher, 2010). Bovill, Morss and Bulley (2009, p. 18) suggest that “when students’ own experiences become the focus of learning and a basis for curriculum design, students found learning more relevant and authentic”.

Authentic learning in professional preparation programs has received some attention in recent years with a particular focus on students’ industry or work integrated learning experiences (WIL). Stephen Billett’s work in the area of student agency and the agentic learner in WIL has helped to meet the challenges of professional preparation by emphasising the need to acknowledge and harness student agency and to enhance authentic learning (2009). Billett further argues for the need to integrate WIL learning within educational programs and highlights the importance of structuring ways in which students make meaning from their WIL learning experiences to engage, support and integrate the multi-layered aspects of their educational program (2014). Integration requires that attention be paid not only to curriculum content and structure but also to engaging students as active learners across their learning environments.

There is broad support in the higher education literature for the value of engaging and empowering students as active participants in student centred learning initiatives (Bovill, 2014; Cook-Sathers, 2014; Carey, 2013) and even as “active partners and change agents in shaping learning experiences” (McInnis, Ramsden & Maconachie, 2012, p. 35). When students take an active role in the process they become co-creators of learning (Wolf-Wendel, Ward & Kinzie, 2009; McCulloch, 2009). Adopting an active and participatory role in learning is thought to enhance deep learning and agency (Bovill, Cook-Sather & Felten, 2011). However, Bovill, et al. (2011) contend that while students are a valuable resource they are frequently overlooked in the design of curricula.

Curriculum is variously defined, most commonly it is identified as the structure and content of a program of study. However the pedagogy, resulting learning and teaching dynamics and students’ learning experiences form important elements of the curriculum (Fraser & Bosanquet, 2006) and a lens through which students’ active participation and co-creation may be examined (Bovill, 2011, 2014). Bovill and colleagues (2011) identified a range of issues associated with involving students as co-creators including academics’ perception of risk to
quality, pedagogic habits and unpreparedness to partner with students, and in turn students unfamiliarity with the agency inferred in co-creation. Bovill (2014) also suggests positive outcomes resulting from involving students as co-creators including enhanced group cohesion, self-directed learning, individual responsibility, engagement and autonomy. These are easily recognisable as graduate capabilities required to navigate the uncertain and complex world of professional practice and support the discourse that there is a need to shift the focus from academic considerations toward students’ experience of learning (Tinto & Pusser, 2006). Felten, Bovill and Cook-Sather (2014) contend that partnerships between faculty and students have the potential to enhance learning experiences, foster collaborative relationships and engage students in new ways of thinking about teaching and learning. Developing systematic ways to be responsive and then proactively engage students as partners and co-creators of their learning will harness opportunities to prepare graduates for professional practice in a dynamic, changing, complex world.

The Project

This project investigated ways to interrogate student involvement in the curriculum and enhance their involvement and agency as learners. In the context of a BN program, the aim was to develop a practice model for engaging students as co-creators.

Method

An action research approach was selected because of the situation specific nature of the project. The project identified the need for collective, collaborative and self-reflective inquiry into learning processes. It sought to: interrogate the curriculum and student engagement; understand the meaning students were assigning to their learning; and to investigate ways to enhance their participation as co-creators in the curriculum process (Kemmis & McTaggart, 1988). The project was designed in two phases.

In phase one a purposive sample of students enrolled in a BN program at a regional university were recruited following ethics clearance from the university Human Research Ethics Committee (HREC approval number S14617). Inclusion criteria were: students in the first or second year of their program of study and who had completed a community WIL placement as their most recent WIL. Students were recruited through announcements made in course classes and their Learning Management System. Students were issued with a professional development certificate to acknowledge their involvement in the project.

Fifteen students took part in one of two focus group interviews. Fourteen students had just completed the first year of their undergraduate program and recently undertaken their first WIL placement in aged care. One student had completed two years of the program and undertaken WIL placement in a community health clinic. In a guided discussion they had the opportunity to ‘work backwards’ through the curriculum spiral where the centre was represented as the highly valued clinical practice or WIL learning environment. From this point they were able to:

- share narratives of their recent WIL experiences
- reflect on these experiences
- map aspects of the curriculum which assisted them to prepare for these experiences
- identify and map learning needs and resources to support and enhance their learning.
In phase two, students who had taken part in a focus group interview were invited to take part in a workshop designed for them to collaborate with the project team to review themes from the focus group interviews and develop ideas for learning materials, artefacts and exemplars. In the workshop students were also asked to reflect on their motivation to be involved in the project and the idea of being co-creators as well as their perceptions of barriers. Despite several attempts to find a suitable time to schedule the workshop, only four students were able to attend the workshop, due to conflicting time schedules and competing work and life demands.

Data from both phases was analysed using a qualitative content analysis process (Ezzy, 2002). Each transcript was systematically labelled, data coded and information collated in categories, based on the key focal question of the discussion. In phase one categorised information from each of the two transcripts was further collated into the one table of categories. From this point descriptive themes were identified.

**Findings**

The phase one content analysis produced descriptive themes concerning the students’ experience in their WIL placement, their reflections on their experience captured as challenges and issues, their reflections on their preparation for the WIL and their suggestions for curriculum development. These are summarised in table 1. All but one of the participants had undertaken their WIL in residential aged care and the focus of reflection was on the aged care setting. For many the experience was novel in terms of their prior experience and it evoked a range of responses. Some acknowledged the confronting nature of caring for frail, elderly residents and of being ‘uncomfortable’. They acknowledged the difficulty in understanding how to communicate and engage, and to undertake ‘fundamental’ care tasks that appeared straightforward but which became complex because of the frailty and vulnerability of the elderly residents. Some were confronted and challenged by witnessing care and communication by other professionals that was not careful and considerate. Others prioritised the purpose of the placement as practising and ‘doing’ repetitions of ‘general’ tasks. For some this was challenging as they didn’t perceive this sort of work as fitting with the role they were preparing for in their educational program. Reflecting on the experiences highlighted its purpose as sense making, in terms of their understanding of themselves as people, developing as Registered Nurses or more basically, tallying their skills competency development.

The participants also reflected on their preparation for the WIL placement, some discussed the preparation in terms of skills and tasks, whereas others focused on preparation for the challenging aspects of the environment. Their reflections on preparation concerned both facilitated and independent learning and preparation, as well as identifying challenging aspects of the environment and practice, for which they could or may not be able to be prepared in advance.

The students also made comments and suggestions for curriculum innovation and development. They made suggestions concerning the structure and content of curriculum, not surprisingly indicating a need for theoretical content related to their recent WIL experience to be located closer to the placement and for the curriculum to accommodate more preparatory practice time, both independent and supervised. In terms of pedagogy and resources the participants suggestions demonstrated the importance of harnessing contemporary digital technology and virtual world sharing capacity. They desired to both bring the expertise of
healthcare professionals into their learning environment but also, and interestingly, revealed their desire to have more control as creators of curriculum. For example there were suggestions about student generated virtual or digital labs as objects they could review and use to revise but also to share, a solution to iteration and practice issues. They also promoted the idea of bringing the realities of student experience into the curriculum by suggesting digital capture of their stories for debriefing but also for briefing of other students, as a solution to preparing for the confrontation of unknown or novel healthcare situations.

**Table 1: Findings phase 1**

<table>
<thead>
<tr>
<th>Focus of learning on WIL prac</th>
<th>Text illustration</th>
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<tbody>
<tr>
<td><strong>Skills and tasks:</strong></td>
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<tr>
<td>- Knowledge</td>
<td></td>
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<tr>
<td>- Repetition and experience with skills</td>
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<tr>
<td>- Fundamentals/ generals/doing</td>
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<tr>
<td>- Interacting and helping</td>
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<tr>
<td>Developing narrative around people’s experiences:</td>
<td></td>
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<tr>
<td>- Learning about people by interacting with them</td>
<td></td>
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<tr>
<td>- Collect experiences</td>
<td></td>
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<tr>
<td>Reflection:</td>
<td></td>
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<tr>
<td>- Sense making</td>
<td></td>
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<tr>
<td>- Learn about self and role</td>
<td></td>
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<tr>
<td>Learn about professionals:</td>
<td></td>
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<tr>
<td>- Role models</td>
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<table>
<thead>
<tr>
<th>Reflection on challenges and issues WIL experience</th>
<th>Text illustration</th>
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<tbody>
<tr>
<td>Care challenges:</td>
<td></td>
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<tr>
<td>- Frailty and vulnerability of clients</td>
<td></td>
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<tr>
<td>- Confronting new experiences e.g. facing death and dying people</td>
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<tr>
<td>- ‘Messiness’ of caring for frail people</td>
<td></td>
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<tr>
<td>- Learning to care for families</td>
<td></td>
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<tr>
<td>Care environment challenges:</td>
<td></td>
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<tr>
<td>- Poor staff attitudes to clients</td>
<td></td>
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<tr>
<td>- Rough care by staff</td>
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<tr>
<td>- Poor communication</td>
<td></td>
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<tr>
<td>- Contradictory information and practices</td>
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<tr>
<td>Learning and role development challenges:</td>
<td></td>
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<tr>
<td>- Low interest in the area</td>
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<tr>
<td>- Purpose of placement</td>
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<tr>
<td>- Tasks versus critical thinking and communication</td>
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<tr>
<td>- Getting the details right – e.g. dressings paperwork</td>
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<tr>
<td>- Not feeling wanted or belonging</td>
<td></td>
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<tr>
<td>Reflection</td>
<td></td>
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<tr>
<td>Facilitated learning:</td>
<td></td>
</tr>
<tr>
<td>- Theory</td>
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</tbody>
</table>

"I just did shower, feed them, put them to bed, change them...but it would have been nice to be exposed to more RN roles” (FG1: D)

"It was a great way to ease into placements because the people (residents) that were there and having conversations with, they were all very good with teaching us how we should be doing it” (FG2: N)

“I learnt a lot about myself and my role in nursing” (from participating in WIL) (FG1: K)

“I’ve had awesome facilitators...they’ve been excellent role models in terms of the nurse I’d want to be” (FG2: O)

"I found it confronting, the frailty of it. All of my grandparents...are very active and very there, so when I went there and there was people at the end stage and they could barely move, I found it ... confronting” (FG2: N).

"I found a few things were uncomfortable and disturbing, just some attitudes and complacencies”. (FG1: L)

"I wasn’t prepared on how to react when they didn’t do it by the book” (FG1: E)

Our RN and our EEN didn't want, really, a bar of any of us students...Just really unapproachable. So that was a bit disappointing... because that was the point of me being there, I'm studying to be an RN”. (FG1: D)

"I love labs....You can go in and practice in your own time...but you're by yourself and..."
**Suggestions for curriculum**

Structure and content:
- Relocate specific topic/courses, e.g. community, aged care
- Embed skills qualification in curriculum
- Include specific skills training
- Include risk assessment training
- Staged and iterative content

Learning/teaching dynamics:
- Bring expertise to classroom
- Student generated content and assessment
- Increase on campus practice time independent and supervised
- Familiarisation activities
- Simulations for complications and complex interactions
- Increase peer learning

Resources and learning materials:
- Placement checklist
- Use role play
- Case studies
- Video exposure for confronting care/client types
- Digital capture student stories and debrief
- Student generated digital labs – familiarise, review, revisit
- Regular self-digital capture – lab prep learning

The findings of phase two captured participants’ reflections on the idea of being involved as co-creators of curriculum and their learning in terms of motivations and enablers, barriers and types of activities (table 2). While highly motivated to be involved and extend their engagement and learning, students reflected on issues and barriers with their time, role and ability to influence learning. In terms of concrete curriculum activity the student participants, together with the academic staff, settled on a plan to produce digital learning resources
consisting of student narratives of WIL experience to use for briefing and debriefing purposes. In the workshop they further discussed placing these narratives within a student ‘app’ that could be designed to help familiarise students with healthcare settings prior to WIL placements while harnessing opportunities for real time support via mobile communication tools.

Table 2: Findings phase 2

<table>
<thead>
<tr>
<th>Factors influencing involvement as co-creators</th>
<th>Text Illustration</th>
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</thead>
<tbody>
<tr>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>• Being involved</td>
<td>“There are times when you think things could be better and the university’s growing so much that you want to be involved in positive change” (W:P)</td>
</tr>
<tr>
<td>• Influencing positive change</td>
<td>“Supporting research to make sure that we’re keeping the things we’re doing right right and helping to incorporate things we could do even better” (W:F)</td>
</tr>
<tr>
<td>• Being involved in research</td>
<td></td>
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<tr>
<td>• Extending learning</td>
<td></td>
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<tr>
<td>Barriers</td>
<td></td>
</tr>
<tr>
<td>• Time</td>
<td>“We are pressed for time and it’s the commitment of having to do something extra” (W:P)</td>
</tr>
<tr>
<td>• Student identity/power to influence</td>
<td>“People just don’t feel like they’ve got much to offer…I’m just a student” (W:B)</td>
</tr>
<tr>
<td>• Having something to contribute</td>
<td>“Our system isn’t geared to students having the expectation that their voice will be heard” (W:J)</td>
</tr>
<tr>
<td>Types of activities</td>
<td></td>
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<tr>
<td>• Produce materials for feedback and debrief</td>
<td>After WIL, “bring back the classes and you could all talk about it…what simulations could we do that you felt unprepared for” to help with preparation for WIL (W:B)</td>
</tr>
<tr>
<td>• Produce materials for iterative learning opportunities</td>
<td>“If people start to feel more confident on campus and in class about their opinions and experiences being valued, that confidence may flow through to placement too and they may feel more confident to speak on their own behalf” (W:J)</td>
</tr>
<tr>
<td>• Being involved in research process</td>
<td></td>
</tr>
</tbody>
</table>

# Illustrations labelled from text, W = workshop, letter indicates participant

Discussion

This project explored opportunities to collaborate with students as co-creators in curriculum creation. Involving students in the design and review of curriculum is valuable in creating authentic curriculum, enhancing student centred learning opportunities, and increasing students’ capacity as agentic learners in preparation for professional practice. However, as
Cook-Sather, Bovill and Felten (2014) assert it is more than just giving the student a voice. It involved exploring and taking opportunities for students to be active participants, partners and co-creators (Bovill & Bulley, 2011). The findings of this project while limited by scale and scope suggest that this type of activity enhances curriculum integration but is distinguished from Billett’s (2014) notion of integration which focuses primarily on structure and content by focusing more on the pedagogy and dynamics of learning and teaching elements of curriculum. Producing capable, confident graduates who are lifelong learners ready for work in a complex world requires that we build students’ capacity as team members, collaborators, problem solvers and change agents (Litchfield, Frawley & Nettleton, 2010; Crebert, Bates, Bell, Patrick & Cragnolini, 2004; NMBA 2006). These attributes represent graduate capabilities and are valued in the ‘work ready’ graduate.

Within the student learning journey involving students in curriculum creation may be valued as an important element of student engagement (Cook-Sather et al., 2014). The findings of this project suggest that this style of engagement in curriculum interaction influences quality of learning and self-regulation (Kahu, 2013; Cook-Sather, Bovill & Felten, 2014). Involving students in curriculum creation develops their identity and sense of ownership of their learning. We concur with Foster and Bosanquet (2006) and argue that curriculum is not just conceived as structure and content but also through the dynamics of the learning-teaching relationship, and in the production of learning activities and resources. When students and staff collaboratively develop these, the student narrative is captured and shared, bringing their unique perspective to the table. The findings of this project support previous work in this area (Bovill, 2014, Cook-Sather, Bovill & Felten, 2014). In this project students reflected on WIL and explored opportunities to develop authentic content. Their narrative highlights opportunities to explore issues around their agency as learners but also as future professionals and how this might relate to their curriculum, content, pedagogy and resources.

The findings also demonstrate barriers and enablers to involvement in curriculum creation. These findings also reflect previous research by Bovill, Cook-Sather and Felten (2011) and Hearle and Cogger (2011). Enablers to student involvement were students desire to extend their learning and to be involved in research and contribute to positive change. Students saw benefits in outcomes for specific courses, for example research. Students in the project identified the importance of working with academics who made them feel empowered, valued the student voice, and would act on the student contributions. Students need to see the value of their involvement to commit their time to the process and this requires a culture shift. Involvement needs to be in manageable pieces with the timing carefully considered to fit around the imperatives of students’ program, for example assessment and exams. Students also highlighted that their voices were valued when they could feed forward to the ‘next generation’. Limitations of the project were that it was a single case study of one discipline, with a small number of students able to commit to phase two, getting from reflection to action. Further research is required to implement and evaluate the impact of student co-created curriculum particularly in highly regulated professional programs of study such as nursing, the one represented in this project. The findings from the current project suggest a focus on narrative and the use of digital technologies would be fruitful applications.

**Conclusion**

Preparation for professional practice in higher education requires students have the opportunity to engage not only a quality learning program, but also to develop attributes and capabilities for professional practice. The activities and results of this project inform a process to involve students in creating and interacting with aspects of their curriculum to this end.
Engaging students as co-creators of curriculum holds much promise, to increase student agency, enhance authentic and meaningful learning and develop the capabilities they require to navigate uncertainty and complexity beyond their program of study.

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References


