

Chapter 17: Case-based teaching and learning

Psychology students as co-creators in designing an innovative case-study based learning resource

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Background

As a mechanism for quality enhancement of the curriculum and the student learning experience at Birmingham City University (BCU), students are asked to provide feedback about the content and delivery of modules and courses. This might take the form of a group feedback session or they may be asked to fill in questionnaires. The results of the evaluation of each module are considered by the course team as part of the monitoring process and provide good opportunities to listen and make sense of student voice. The teaching team of the Educational Psychology module (Level 5 – second year undergraduate), part of the BSc Psychology course, in analysing student responses to module evaluation questionnaires discovered that a common theme in student feedback for their module related to missing opportunities of linking theory to practice throughout the learning on the module, and generally within the Psychology curriculum as a whole. This was also reiterated in other informal feedback opportunities, such as one-to-one tutorials and learning activities in plenary face-to-face sessions.

Work experiences, placements and enriched mentoring programmes could be put in place as possible solutions. However, when considering the specific subject area and level of study, anecdotal evidence and previous studies (Reddy & Moores, 2012) seem to suggest that these opportunities tend to be limited in scope, and benefit only a small number of learners in a given formal educational experience. Therefore, the teaching team decided to experiment with an innovative approach to learning activity design. Rather than passive recipients of knowledge, students have become active participants in facing real-life problems and scenarios. Furthermore, some of them have also had the opportunity to identify the specific areas of the curriculum in need of improvement and have co-created those scenarios and learning resources aimed at encouraging problem-solving and active learning.

The Practice

Innovative approaches related to students as partners and co-creators of learning activity and resources seem to have gained momentum in the past few years (Carey, 2013; Nygaard et al., 2013; Bovill et al., 2011). The teaching staff on the undergraduate Psychology course at BCU were willing to challenge the traditional conception of academic staff being in control of every aspect of the learning design (Mann, 2008). Meaningful collaborations amongst students, and between students and academic staff have been identified as having the dual purpose of enhancing existing learning and teaching approaches, and, at the same time, creating the conditions for transformative learning to take place, as described by Biggs and Tang (2011).

A call for student partners was communicated to current and previous students on the Educational Psychology module. Three students showed interest in co-creating resources and, together with the teaching staff, they contributed to the submission of an application for funding to the existing Student Academic Partners (SAP) scheme, run by the Centre for the Enhancement of Learning and Teaching (CELT) at BCU. The scheme has been in existence at BCU since 2008, and allows students to be employed by the university, working in partnership with staff. The main aims of partnership projects funded by SAP relate to shaping collaboration and communities working on pedagogy and research. The funding pays for student time, while they are employed to work together with staff to transform and enhance areas of the curriculum and the learning experience across the University (Bovill et al., 2015). At present, the SAP scheme funds around 50 projects per year, and some of these

experiences have been documented in a previous publication (Nygaard et al., 2013). The idea of partnering with students in the co-creation of learning resources is not a new invention per se within the institutional context. In fact, the commitment to the philosophy of

‘students as partners’ has over the years become deeply embedded in the organisation and these types of implementation are often seen as a manifestation of the BCU institutional core values (BCU, 2014). The novelty and the perceived added value of the innovation described here relate to a specific context in which this has been applied, and the intended output of Psychology student and staff collaborative efforts. The application for SAP scheme support was successful, and this was essential to commence and sustain the partnership work in the following months. Being an established platform and framework for collaboration, the SAP scheme handled the administrative side of the partnership (i.e. funding, student employment) and CELT also provided technical and pedagogical support to the initiative.

Having established the administrative dimension and identified additional institutional stakeholders, the next step was the articulation of roles and responsibilities, to be shared between the academic and student partners. It seemed clear from the outset that the end product would need to create a legacy, which would positively impact on the learning experience of future students on the course. However, the shared view of staff and student partners was that, first of all, the team needed to identify a specific area of the curriculum that could be enhanced by such a product. Further, the team had to articulate how this area could be made more relevant and engaging. Finally, the technicalities of the actual multimedia resource were to be decided.

Addressing the “muddiest point”

Psychology students in the project team had been already experienced the Educational Psychology module in its original format. They were therefore in a position of providing unique insights and alternative perspectives to the teaching team. Student partners were initially reminded and re-introduced to relevant literature, in order to strengthen their understanding of core concepts and boost their confidence in dealing with subject specific topics. The initial team meeting allowed time and space for students to identify the “muddiest point” (that aspect of their understanding that seems to them to be the least clear) in the syllabus, which was narrowed down as being the design of effective interviews with the

parents of a child. This did not come as a surprise to the teaching team. One of the learning outcomes of the Educational Psychology module relates to making effective choices when conducting interviews, and articulating a rationale for these choices. Also, the development of an interview schedule is part of the assessment for the module. However, even if the theoretical background is presented and explained, the existing learning design of the module did not appear to provide enough opportunities to plan and experiment with those choices. In other words, the student partners highlighted the need for more explicit connections between theory and practice for this particular area of their curriculum. According to the principles of constructive alignment introduced by Biggs (1996), the learning activity design should aim to facilitate and support students in working towards and successfully meet the learning outcomes set at modular level. Therefore, the teaching staff saw an opportunity here to implement and apply this principle to the Psychology curriculum.

The obvious challenge was then creating a working solution to address the issue, by crafting a safe learning environment, in which students on the module could make mistakes and learn from those mistakes. Practising with subjects in real life was not a viable and scalable option, given the level of study, the limited previous experience of students and ethical implications, which are specific to the subject area. At this level of study, it is not considered appropriate for Psychology students to find parents or carers of a child with learning difficulties, intellectual disabilities or Attention Deficit Hyperactivity Disorder or Autistic Spectrum Disorder and conduct a developmental history interview. This would require a lengthy process of institutional ethical clearance and approval, besides additional training, supervision, access to educational or clinical settings, and a process of risk management associated with the procedure of collecting information on sensitive topics. Undergraduate students usually do not have access to these resources and opportunities.

Two alternatives were identified: role-play and interactive case studies. One of the initial brainstorming meetings identified as a possible solution and potential outcome of the SAP project the creation of an interactive multimedia resource that would allow a student to explore all the stages involved in taking a clinical, assessment or developmental history interview. Embedding this resource in the Educational Psychology module would contribute to giving students an opportunity to both challenge their skills with a real-life case study and provide “exercise spaces”, as described by Holtam (2015). The expected outcome would

ultimately relate to the enhancement of the overall student experience and a further step towards a more constructively aligned curriculum (Biggs, 1996).

Co-creating the learning resource

As part of the assessment for the Educational Psychology module, students are required to produce a developmental history interview, write an educational psychological assessment report and justify the choices made in structuring the interview, with articulation of relevant theoretical frameworks. This type of assessment is practice-led and would ideally benefit students wanting to pursue a career as an educational or clinical psychologist. Following the summative assessment, students had an opportunity to receive feedback which would guide them in addressing further educational needs and contribute to strengthen their clinical and employability skills. However, the formative feedback and opportunities for reflection throughout the module were limited and probably not adequate for the development of these skills, which usually require clinical practice and exposure to real life situations. The student partners stressed the importance of the fact that the learning resource to be created had to address this weakness.

As the interactive case study approach seemed to be the preferred solution to try and address the issue, the learning technology team in CELT introduced both academic and student partners to an in-house technology solution known as Shareville, and openly available at <http://shareville.bcu.ac.uk/index.php>. Shareville provides simulations, interactive case studies and an explorative type of interface which resembles the real world, it hosts learning activities aimed at providing students with 'real-life' experiences of the kind that are difficult to provide in a traditional educational environment. The types of cases and real life scenarios which can be found in Shareville are varied and are crafted to support holistic learning experiences across the university.

The default workflow for the production of Shareville learning resources involves academic staff presenting a rough idea to learning technology developers, who then design and implement one or more ad-hoc interactive scenarios. Through the collaborative project described here, there was an opportunity to experiment with the empowerment of students as co-creators in most of the idea generation, planning and design of the interactive elements of a Shareville resource. A series of brainstorming sessions were put in place, letting both

academic and student partners free to imagine what they would like to see and experience, as a concrete product of the collaboration. The brainstorming sessions were followed by a series of writing labs, where a few case-studies were co-drafted by student and academic partners. The case-studies detailed the context, realistic characters (i.e.: children, parents) and real-life situations (i.e.: pathologies, triggers, issues). These drafts were intended to inform the design of the learning resources and provide the necessary realism and context that the Shareville scenarios and simulations need to make the necessary impact. The term ‘simulation’ as applied to the field of education and training is a contested one and any definition offered is therefore only to be taken as convenient shorthand for the type of simulation being discussed in this work. Encyclopaedia Britannica defines simulation as, “a research or teaching technique that reproduces actual events and processes under test conditions,” and notes that the word stems from the Latin word *simulatio* meaning ‘an imitating or feigning’. Smith (1999:2) defines simulation as, “the process of designing a model of a real or imagined system and conducting experiments with that model.” We would echo this view with the caveat that these ‘experiments’ relate to the application of prior learning by individual students to specific scenarios.

A question that is sometimes asked of this kind of simulation is, ‘Aren’t they just playing at it?’ We would answer the implicit criticism by stating that there is no ‘just’ about it and that ‘playing’ in this context is as valid a usage here as it is in early years education (Moyles, 2010). Indeed, the convergence of simulation with computer technology is probably most easily identified in the ‘Serious Games’ movement. The concept of using a game (which Clark Abt (1960), who first coined the phrase ‘serious game’, often used interchangeably with simulation) to support learning seems to fit in well with a constructivist epistemology and pedagogy. Dewey’s ideas regarding ‘active learners’ (Schubert, 2005), Piaget’s ideas about the need to modify and change environments to know them (Huitt & Hummel, 2003) and Bruner’s insistence that learners find things out for themselves (Smith, 2002) can all be taken as key elements of serious games and simulations.

It was made clear to both student and academic partners, that the level of the details needed particular consideration in crafting characters and simulated scenarios. Therefore, providing insights from experiences in real clinical settings was the essential role of academic partners in facilitating student partner contributions to the case-studies. From the student perspective, they were contributing to the case-studies by highlighting those aspects of the subject area

where further exemplification was required, and where the theoretical models could benefit from further links to the complexity of real-life contexts. The overall co-writing process followed an iterative dialogical approach, and contributions from both sets of partners were enriched at each revision point by individual partner's comments.

The student partners needed more guidance from the academic partners in the following stage of development of the learning resources, where multimedia scripts needed to be produced. The idea of an interactive interview was put forward, so a bank of questions had to be developed. These questions had to be based on the drafted case-studies and cover the areas of clinical practice, assessment and developmental history. The overall project would include three phases: the scripting phase, where student and academic partners create the scenarios, the characters and the interview questions; the production phase, where the interactive interview learning resource is set-up and implemented in the curriculum, and the evaluation phase.

At the time of writing, the scripting phase has been completed and the production phase is ongoing, under the supervision of the learning technology team in CELT that have highlighted the high quality of the case-study and multimedia script provided.

The ingredients of success

An institutional framework for staff-student partnership is definitely helpful in setting up co-creation projects and contribute in shaping motivations and the sense of community (Nygaard et al., 2013). Alternatively, students could be employed with temporary or ad-hoc contracts. In this case, leadership, authority and power issues must be carefully considered to avoid unhealthy imbalances which may harm co-operation (Bovill et al., 2015). An ongoing dialogue with student partners is paramount. This would include aspects of the subject area, motivation and project aspirations in terms of learning and teaching practice. Relevant studies, research papers, lived experiences and real-life stories are helpful in inspiring the drafting of realistic case-studies, which are pertinent to identified area of the curriculum. Beyond the scripting, the implementation of the actual resource would require support from learning technology experts or instructional designers.

Outcomes

The student partners felt empowered in making an important contribution to the curriculum. As a result, there was an opportunity to positively impact on future student learning experiences. The variety of learning opportunities and teaching methodologies is often perceived as a de-facto offer in contemporary learning and teaching practice. However, if that innovation is largely a tutor-led one, the student voice may get lost in the process. The innovation described here is not only a response to student voice, but also the result of a staff-student partnership approach. Student partners have played an important role in shaping learning design which benefits their peers. This certainly constitutes a learning experience in itself, and perhaps it has provided opportunities for reflection, when considering how these students have contributed to the academic community of our university. For end user students, the outcomes of this partnership should positively impact on academic and employability skills. In particular, aims include the enhancement of student transition from the undergraduate to the postgraduate studies and life in practice by providing a 'flavour' into the applied aspects of qualified professional psychologists. Student partners reported that having a role in shaping aspects of the learning and teaching practice had a positive impact in their confidence in dealing with the actual subject area. They themselves appreciated the value of linking theory to practice, and made connections with other topics they have encountered in their current level of study. They become more engaged with the entire curriculum and their experience in the University. This acted as a motivator in deepening their research around their interests and they engaged more deeply in independent learning activities. They have also had a chance to appreciate some of the learning design processes, which go beyond the delivery of content and other learning activities within the face-to-face sessions.

Moving Forward

As the Shareville project is largely self-funded by CELT, resources are limited in scope. The design and production of innovative multimedia resources and simulation which are successfully embedded in the curriculum heavily relies in the academic staff being willing to experiment and try new learning design approaches. The collaboration project described here has paved the way for further meaningful collaborations with students, at different levels. In the first instance, being an active participant in the learning design experience, they

can identify and highlight the areas of the curriculum which need further development. Additionally, they can also contribute ideas, perspectives and enthusiasm to the following stages of production and implementation of Shareville scenarios and simulations. Beyond these contributions, we aim to involve and empower students in evaluating the effectiveness of online problem-based learning and simulation, in a context in which time, expertise and other resource allocation needs to be fully justified.

Simulation type activities are most closely associated with military and medical training applications and have been for many years but, whilst there is an ever growing body of research literature surrounding the topic, many researchers in these fields have been cautious not to overstate the benefits and little controlled research identifying benefits in terms of learning gain have been carried out. In particular, there is criticism that, despite the obvious (and possibly superficial) links with constructivism as described above, the literature lacks a strong theoretical background linked to a clear pedagogy that can establish, in principle as well as in practice, whether learning through simulation is a 'good thing'. In essence, the question has become 'whether, learning by simulation can become self-referential and offer a simulation of learning' (Bligh & Bleakley, 2006:606). Our research into the use of simulations, for example in the area of Initial Teacher Training (Lowe et al., 2015), through Shareville have shown some marked improvements in student confidence and self-evaluation of skills development and we continue to both implement and research our use of simulated activity through Shareville with the desire to establish such a framework. However, more research is necessary to assess the value of these efforts, and we believe that students can be involved as co-researchers and add depth to this explorative inquiry.

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