

## From practitioner-producers to knowledge co-creators: An early view of a design-based research project to foster insight generation into MOOCs

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The University of Adelaide established its MOOC initiative, AdelaideX, in 2014 with goals including generating and sharing insights into effective practice in open online learning. Our professional and teaching staff are amassing valuable experience in conceptualising, designing, developing, delivering and evaluating MOOCs and are part of an emerging knowledge community among MOOC-active universities. In 2016, AdelaideX is running a Creating Insights Project, with the goals of feeding innovation at the University, enabling our people to fulfil aspirations towards capturing and sharing their ideas about MOOC making, and securing rich insights which can be fed formatively into future course and program activities. To do so, we have begun to experiment with a design-based model for practice research. In this way, we are positioning the relationship between academics and professionals as investigative partners, a promising means to develop capacity for insight generation in the open learning space.

Keywords: Open learning, professional practice, evidence, collaboration, design-based research, innovation, MOOCs

### AdelaideX and the need for insights

AdelaideX is the University of Adelaide's open online learning initiative, formed in 2014 when the University entered into a partnership with MOOC platform edX. Among our strategic goals is fostering effective practice in digital learning and teaching, through exposing Adelaide educators to design and development activities geared towards release of a MOOC – a Massive Open Online Course – at the edX.org site. As such, the need for insight generation at AdelaideX comes from three main directions:

Institutional need to derive practice-based insights from core MOOC-making activities to feed innovation;  
Desire of our people to share insights from their collaborative experiences making MOOCs;  
Practical need to ensure program/course enhancements are recognised and adopted, where appropriate.

On the first of these, AdelaideX also has a remit to feed innovation at the University of Adelaide more generally, in the area of online learning and teaching with MOOCs. With this in mind, there is a clear need to establish insight generation as part of our 'business as usual' across our professional and educator groups, and at the same time there is an opportunity for AdelaideX to explore, evaluate and model for others some new ways of deriving and working with evaluations, surveys, qualitative feedback, and other forms of potentially insight-rich data. We have many reflective practitioners in our midst, with limited opportunity to reflect. And we have a still young program which will surely develop and mature, which we think should be based on evidence of what works. For all these reasons, we are now trialling a Creating Insights Project as an approach to enable insight-generation to be integrated into the program team's armoury of skills, marking a new stage of our development as we add to our existing roles as producers to become co-creators of knowledge relating to organisation, design, development, implementation and evaluation of MOOCs.

The Creating Insights project will complete its first cycle of activity in late 2016 and therefore this paper is offered as a snapshot of a live experiment, geared towards developmental ends. If we are successful, we hope to establish the models for investigation, recommendation and adoption we outline here, as an ongoing element of the AdelaideX group's work on innovation through MOOCs.

## **The challenge: Introducing reflection into a production-oriented setting**

The key challenge associated with introducing a ‘systematic educational design process’ (Plomp, 2013, p. 17) for MOOCs is in traversing the production workload associated with designing and developing them. An AdelaideX MOOC typically comprises up to 6 weeks of learning material, containing 50-80 videos, around which learning sequences are structured. In this context, the effort to increase AdelaideX’s capacity for reflective practice has been a gradual one, as we have grown from an initial focus on establishing and producing MOOCs, towards deeper exploration, learning and communication of what we are learning. It is a privilege that perhaps comes with AdelaideX’s transition from an initial establishment phase during which we designed and implemented the systems, supports and practices that would reliably produce MOOCs, into a more mature phase in which our program’s implementation no longer needs to be designed from the ground up.

We should not underestimate the challenge involved in seeking to make this type of transition, at a time when MOOCs remain highly resource-intensive and few universities have successfully specified a sustainable development model (Fischer et al., 2014). Reflective practice, after all, requires a workload model that contains some time for it, and a commonly encountered drawback of MOOC-making today is that when a course team embarks on the “on-ramp” towards a specified release date, the production schedule comes to dominate over more reflective activities – though there is usually more leisure later to reflect and learn from the MOOC we have made, this places the work of reflection firmly in a summative role, where it can only drive enhancements after the fact.

With this in mind, it is significant that AdelaideX initially had a fairly strong production orientation, charged as it was with delivering 5 MOOCs within the first 12 months of the edX partnership – a not-unusual requirement for universities entering into MOOC partnerships – and thus in our immediate context there was a strong need to bring our collective focus onto a method that would support a movement towards reflective practice alongside undoubtedly intensive work on course production.

## **An overview of the Creating Insights Project**

The Creating Insights Project was established in Semester 1 2016, after a period of initial scoping of possible approaches to supporting innovation in learning and teaching with MOOCs, conducted by members of the AdelaideX Operational Group, representing stakeholders of the program. The group made two critical decisions:

4. To establish three MOOC Mentors roles – to support the AdelaideX professional team with an initial phase of education development work, including investigations;
5. To form the Creating Insights Project – to provide a forum for development of investigative projects which could be led by the AdelaideX program team in 2016.

The work of the project was to be focused on trialling a method for the AdelaideX team and collaborators to pursue insights into design and development practice, so that they could actively inform innovation at Adelaide.

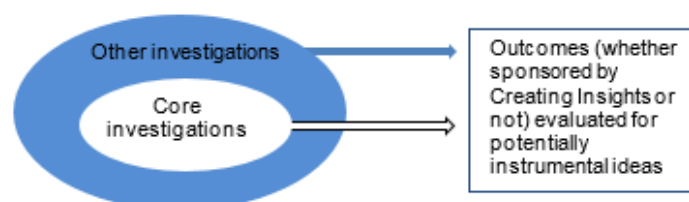
**Table 1: Creating Insights Project: Key Ideas**

<b>What?</b>
<ul style="list-style-type: none"> <li>• Ideas for planned investigations into learning and teaching with MOOCs</li> <li>• Input on pilots that may emerge in relation to the AdelaideX program</li> </ul>
<b>Why?</b>
<ul style="list-style-type: none"> <li>• Generating insights into AdelaideX’s work, while we work</li> <li>• Supporting the whole team to investigate things we want to know about MOOCs</li> <li>• Engaging in reflective practice, we are constantly learning</li> <li>• Feeding potential innovations at Adelaide related to open online learning</li> </ul>
<b>What are we not?</b>
<ul style="list-style-type: none"> <li>• The ‘gatekeeper’ for research relating to AdelaideX (but we will support colleagues conducting research)</li> <li>• Authorisers of research to be done by faculty course teams (but again, we will support them as needed)</li> <li>• About generating change for change’s sake – we want to base future decisions about program and course design on evidence of what works</li> </ul>
<b>What can we do?</b>
<ul style="list-style-type: none"> <li>• We can reflect and learn from our practice with MOOCs, working collaboratively</li> <li>• We can raise the profile of what the team are learning through our work with decision-makers</li> <li>• Our group has the power to communicate with influence about MOOCs, at UoA and externally</li> <li>• We can use a practice-oriented research model to structure our investigations</li> </ul>
<b>What’s a good investigation topic?</b>
<ul style="list-style-type: none"> <li>• It’s <u>timely</u> – it speaks to a current need, problem or challenge we have noticed in our own practice</li> <li>• It’s <u>relevant</u> to our university – it speaks to challenges in our strategy for learning, teaching and assessment</li> <li>• It’s <u>instrumental</u> – it may help us to improve our program or course level practices, through description and communication of a solution to others</li> </ul>

We held two workshops with AdelaideX team members and the MOOC Mentor team. At the first, we introduced the principles of design-based research (Reeves, 2006; Amiel & Reeves, 2008) and discussed the DBR model, from analysis of practical problems through development of initial solutions, iterative testing and refinement of practical solutions, and reflection to produce new design principles or recommended solutions. The output of that workshop was a list of 19 possible topics suggested by the group, which the co-chairs grouped thematically and prioritised according to our three principles for good investigation topics (labelled ‘TRI’ – timely, relevant, instrumental). At a second workshop, we formed project teams around 4 chosen topics, and provided templates based on Herrington’s DBR one-page templates (n.d.) for the teams to use to flesh out their challenge or problem on one page, and to establish an initial plan of attack for each team.

The topics we identified for 2016 align with the strategic priorities for learning and teaching at Adelaide: around student-centred design; demonstrating the value of MOOCs to learners; understanding factors that enable MOOCs to be reused; and investigating how communities and groups form in MOOCs. These core topics can be supplemented by other investigations which arise from our community, as needed.

Importantly, our project is intended to distribute the roles of initiating and driving shared investigation among peer-collaborators, whether a project is formally led by a professional or academic staff member. In this way, we can begin to involve all who have a connection with our MOOC practice to develop and communicate their insights, and so we hope to gently challenge teaching staff to engage in this work alongside collaborators with a professional interest (Figure 1).

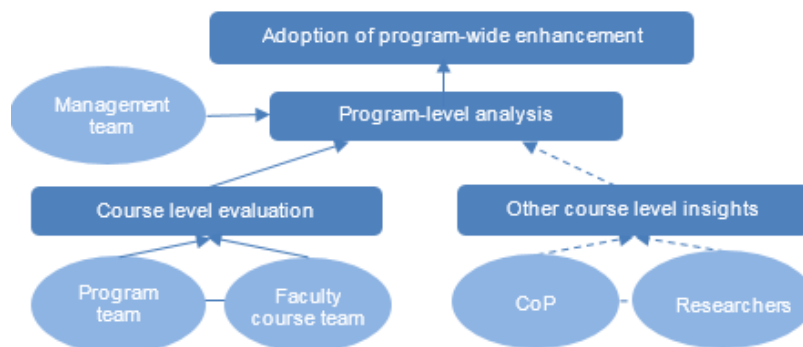


**Figure 1: How core and other projects will feed into decision-making**

This we think is a promising method to build confidence and skills in practice-based research, from within the core team who will be in a position to model this practice for future colleagues and collaborators as their exposure to this way of working grows.

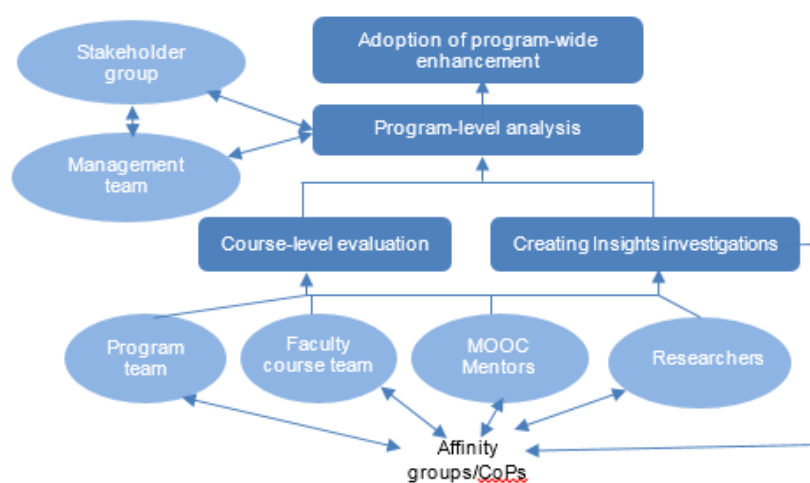
## Views of our knowledge network

We have described AdelaideX as initially a heavily production-oriented group, although, with an ADDIE-style overarching course lifecycle in place guiding course development, insights from evaluative activities (such as post-delivery debriefings and student surveys) were put in place at an early stage. Using data provided by our technology provider edX, in 2015 several educators wrote scholarly papers and conference presentations, and the AdelaideX program team conducted program and course improvement activities with an internal focus. This was no bad thing in itself, of course, since it demonstrated the interest and ability of each ‘stream’ to contribute to reflective practice, albeit mostly in a summative way. In 2015, we also benefited from the creation of a Community of Practice focused on MOOCs, where many MOOC-active colleagues were able to share knowledge. We describe this early work as largely following traditional pathways to dissemination, with two distinct research/scholarship of learning and teaching and evaluative/improvement tracks. Figure 2 (below) shows a way of visualising this initial version of our internal knowledge network.



**Figure 2: Original pathways for MOOC insights**

Figure 2 shows gaps between ‘improvement’ work (internally focused) and ‘evidence’ work (focused on publication and dissemination), and a gap too between course-level evaluations (involving faculty and program teams) and program-level decision-making. With the introduction of a more connective method through Creating Insights, we can see this changing. Figure 3 (below) shows a revised network view of the insight-generating structure of AdelaideX, with a stronger connection between course evaluations and investigations fed through Creating Insights. Both sets of evidence feed into program-level analysis, which is conducted, and enhancements decided upon, by AdelaideX’s stakeholder group and our management team. Faculty and professional collaborators are able to access advice and support from Creating Insights, and vice versa, so that both evaluative and investigative aspects of the work now connect. This, we think, provides a sounder basis for flow of insights between people working on course design/development and those working on scholarship of learning and teaching, as well as a two-way flow into and out of affinity groups (CoPs and others).



**Figure 3: New pathways for MOOC insights**

## Conclusion

The Creating Insights Project's 2016 activities will be evaluated on the basis of participation by academic and professional peers; by engagement as well as production of solutions arising from the DBR process; and by an assessment of the applicability of the insight-generating model to the future needs of the AdelaideX program. Implementation improvements arising from the first cycle of Creating Insights will be explored in a future paper.

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