RebblePad

CASE STUDY

Using PebblePad in a creative environment

Henry Skates, David Green, Celia Brooke, Zahra Hamedani, Julie Crough & Christopher Allen, Griffith University, AU



PEBBLEPAD CASE STUDIES

STORIES OF INNOVATION TOLD BY THOSE CHARTING NEW COURSES IN LEARNING, TEACHING AND ASSESSMENT.

THE CONTEXT

Architecture Programmes in Australia are accredited by the Architects Accreditation Council of Australia (AACA) against the 'National Standard of Competency for Architects'.

The National Standard of Competency for Architects, administered by the AACA, comprises four Units of competency, 11 Elements and 70 Performance Criteria relevant to the activities of professional architectural practice.

The four Units of competency are:

- Design
- Documentation
- Project Delivery
- Practice Management

Design and Documentation are the two areas most relevant to studio work at university. Project Delivery and Practice Management are partially covered by Professional Practice courses at university, with the remainder being covered in the workplace on graduation. A new reporting regime was introduced late in 2018 whereby only the postgraduate program was assessed rather than both the undergraduate and postgraduate programs. This put immense pressure on the existing structure of the Master of Architecture program to demonstrate competencies that had previously been spread over the undergraduate and postgraduate programs. In the new regime there are 70 performance criteria assessed, of which 27 are relevant to Design Studio. For each Criterion there are five Knowledge Domains that constitute the broad base of understanding that underpins each of them.

This case study was in the first design studio of the Master of Architecture Program, 'Advanced Architecture Design Studio 1', and coincided with the 5-yearly AACA accreditation review. The Advanced Architecture Design Studio 1 was chosen to demonstrate competency in the relevant 27 performance criteria across the 5 knowledge domains. The challenge was to redesign the course (module) so that it would include evidence for all 27 criteria relevant to design studio.

THE PROBLEM

Architecture design studios are usually taught using Action Learning. Students are presented with a client brief and a site, and the end product is normally the design for a building with architectural drawings and models being the primary outputs. Students are assessed against five or six broad criteria that make up the context for architectural design. There is often a lot of room for subjective assessment on the part of teaching staff that can be frustrating for staff and students alike. For staff, because students don't always seem to grasp what is being asked of them, and for students because what is being asked of them is vague.

The challenge in this case was to clearly identify the relevant knowledge domains within the 27 performance criteria and to clearly evidence student competency in terms of skills and knowledge.

THE APPROACH

The main learning design decisions made by the course designers were:

- The flow of work for students should follow as closely as possible that of the normal design process to make the learning as authentic as possible.
- Students should be able to clearly understand what was being asked of them for each competency and criterion.
- Examples of previous student work should be made available to demonstrate excellence.
- Students should be able to upload their work for assessment and have it assessed and feedback presented using the same learning platform.
- Students should reflect on what they have done in their assignment work and self-assess their competency before the task, immediately having completed the task, and before being assessed for that task by teaching staff.

To ensure that each of the 27 competencies were addressed, a PebblePad workbook was prepared that contained, amongst other things, 27 worksheets to cover each of the 27 competencies.

Worksheet content included as appropriate:

- Banners with text heading different image on every worksheet to help create visual interest.
- Single and multi-line text boxes to provide explanation and other learning content, including inline links to important downloadable documentation and important external websites.
- Radio buttons and check boxes where students were required to confirm that they had considered and/or included an item.
- Text area hints.
- Images to provide visual interest relevant to the content of the worksheet and some image fields that themselves contained links to downloadable documents.
- Likert scale ratings where students and subsequently staff assessed the level of competency.
- Rubrics to show clearly what was being assessed for each criterion.
- Evidence boxes for students to upload evidence and demonstrate that the evidence had been uploaded.
- Media picker to allow students to upload evidence using different file types.

Before students were given access to the overall content of the workbook, students were required to self-assess their proficiency for each criterion. On completion they were given access to the complete workbook. The first tab was an introduction to the course and a description of the competencies that they would have to evidence, followed by an instruction sheet on how to complete the workbook.

There followed two general heading tabs for the two units of competency being assessed, Design and Documentation, under which were sub-headings where the competency worksheets were nested. An explanation was given at the top of each of these worksheets to help clarify what was required to demonstrate competency, alongside an image exemplifying the type of evidence required. This was supplemented with downloadable examples of previous work that evidenced the particular criterion. Three or four submission points were included where students could upload images of their work, allowing them to evidence how that competency was met. Students were required to reflect on why the particular piece of work was chosen and to highlight clearly which parts of their work evidenced the criterion. Having uploaded their evidence, they then re-self-assessed their proficiency for the individual criterion. Individual marking rubrics that detailed the knowledge domains being assessed for that competency were included on the worksheet and feedback sections were then completed for each criterion where staff could assess actual proficiency.

THE RESULTS

The use of PebblePad in a creative environment provided some fantastic opportunities but also created some challenges. From a teaching perspective, PebblePad provided the ideal platform to ensure wellorganised delivery and assessment of each of the required criteria against the required knowledge domains. Student feedback indicated that they appreciated the clear structure of the course and content. Interestingly though, students thought that 'the structure of the workbook interfered with their normal working practice', but they also appreciated that they were 'required to consider and integrate things that they would not normally consider'.

The most significant impact of using PebblePad was that we were able to clearly provide evidence that all of the required competencies were being taught and assessed at appropriate levels. One panel observation was that perhaps we had 'atomised' the competencies too much, and that in subsequent offerings we should consider agglomeration of criteria into more substantial elements.

One interesting observation is that, generally speaking, students who regularly self-assessed themselves highly for each competency were the ones who performed least well. Similarly, students who self-assessed themselves moderately performed at a very high standard. This may be because the less knowledgeable students did not know what they did not know, whereas the better-informed students were more aware of their limited knowledge in the larger scheme of the discipline of architecture.

Perhaps the main outcome from the PebblePad intervention was that we were able to demonstrate that passing students in the Advanced Architecture Design Studio 1 met the threshold standard for competency across all of the required criteria. The Architecture Program at Griffith received a full 5-years accreditation.

LESSONS LEARNT

Comments from the accreditation panel indicated that perhaps the criterion had been 'atomised' so much that the broader learning objectives were being lost in the fine detail. From the teaching staff point of view, the atomisation of tasks created a huge burden timewise in assessing each criterion against the individual rubrics.

It was decided that in subsequent years the criteria would be agglomerated into broader learning objective headings, much like the previous traditional headings, but each of the 'atomised' worksheets be included for information to guide students as to what type of information is required to demonstrate competency for each criterion included in the broader headings.

Staff struggled with the interface and students commented that 'from an aesthetic/design point of view, the PebblePad interface is somewhat restrictive in terms of page, image, table/rubric and typographical layout'. This is somewhat disconcerting in a creative environment, where quality page layout, image and typography are integral to communication skills achievement in the discipline. Students described the interface as 'clunky'!

IN BRIEF

- PebblePad is excellent for clearly structuring, providing resources, evidencing and assessing complex learning criteria. It's a one stop shop!
- PebblePad can be used in a creative environment but the restricted PebblePad interface can be a 'creative' challenge for staff and students alike.
- PebblePad provides an excellent platform for teaching a well-structured approach to the complexities of the design process but does not cater well for the non-linear nature of design. Students described it as both 'a blessing' and 'a curse'.

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GET IN TOUCH

There are an awful lot of things that make PebblePad unique. Not least the fact that it's a platform designed by educators for educators. Indeed, the PebblePad team is bursting to the seams with innovators and practitioners, all of whom learnt their craft in teaching roles. If you want to talk to a team who really understands your world, get in touch.

PebblePad HQ (UK)

PebblePad North America

PebblePad Australasia

01952 288 300

(864) 650 5406

0400 899 820

- ✓ hello@pebblepad.com
- https://twitter.com/PebblePad
- in https://www.linkedin.com/company/pebblepad