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A journey through course development: The design process for a new early childhood education course

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This paper discusses the design process in the development of an undergraduate early childhood course. This design process was grounded in learning theory, using a team-based collaborative process to consider, develop and refine the course design. It started with a reflection on the learners and the learning environment. It then moved into an iterative process of investigation, creation and refinement of a new course that addresses the characteristics of the learners, the learning environment, authentic assessment and the learning outcomes holistically. This paper details the design process from initial conceptual thinking through to the final proposal ready for the University governance process and accreditation approval. Future directions could consider investigating the experience of all stakeholders involved in the process, as well as the student experience of the new course, to inform the process of collaborative course design.

Keywords: Collaborative course design, pedagogical review, constructive alignment, student focused.

Introduction

The purpose of this paper is to discuss the learning design process for the development of a new early childhood course at the University of New England (UNE). The design process in this paper explains how the course was prepared for governance approval processes and the relevant accrediting body. Development of the unit content would follow and will be discussed in future publications. Adopting a team-based, collaborative approach, members of the early childhood teaching team and UNE learning design team created a new course that adopted the principles of constructive alignment (Biggs & Tang, 2011) and backwards design (Wiggins & McTighe, 2005). This paper reports on the steps, approaches and strategies of the collaborative design process from a learning design perspective. It is not a research project.

Background: A new early childhood course

In order to address the changing needs of the student cohort and staff shortages in the early childhood sector, a proposal to create a new early childhood (EC) undergraduate course was initiated by two members of the Early Childhood teaching team (EC Team) in 2020, which was finally approved by the university in 2022. This student cohort is unique in their needs and challenges: they are diploma-qualified early childhood educators who have been working in the EC sector with years of experience and some are in leadership positions. For many of these EC educators, upgrading their qualification to that of an early childhood teacher is to meet the current policy and legislative requirements. The university's data show that students in this cohort are aged 35-45, with the majority of them doing their study part-time. These students have significant family and work commitments and often find it challenging to seek a work-life balance. Also, most of them have not studied at university before and consequently, the transition between TAFE to university has been particularly challenging for many of them. To address the changing demographics and expectations, and ensure student success, revolutionary changes are needed to the structure and design of early childhood education.

Structurally, this course consists of eight clusters of topics that cover the requirements listed in the accrediting body Australian Children's Education and Care Quality Authority (ACECQA). Within each cluster, there are two 3-credit-point (3 cp) units (we call them modules) and one 6-credit-point (6 cp) unit. The modules were designed to deliver content into sizeable chunks for students to progress through the course, and help students adapt to the transition from TAFE to university. Pedagogically, modules were planned to have authentic learning experiences and assessments, allowing students to build on their workplace experience in the early childhood sector and apply this to their learning. The new course is delivered online only.

The Design Process

The design process involved four steps using backward design (Wiggins & McTighe, 2005):

1. Critiquing the current course – identifying gaps in addressing student needs and proposing a new course structure
2. Investigating the university's systems, policies and frameworks for the new course
3. Workshops to explore learning outcomes, graduate attributes and assessment ideas and
4. Conducting a pedagogical review – as a reflective tool to consider holistic course design.

At all steps throughout this process we aimed to maintain a holistic focus on the course design and the early childhood graduate (Goode et al., 2018). Academic staff in the EC team partnered with the Learning Design Team (LDT) at UNE to assist with developing the new course, focusing on collaboration, connection and keeping a course level perspective in the process of design (Mihai, 2023). The benefits of this approach is that the course is developed with different perspectives, with the EC Team offering their professional knowledge in the EC sector and experience in teaching and learning; and the LDT and academic development team at contributing to the development of the course from a learning design viewpoint, leading to the creation of a synchronised learning experience for students (Mihai, 2023).

1. Critiquing the current course

This step started with a series of reflections, brainstorming and exploring what a new early childhood course could look like. Considering the changes in the EC Sector, the student cohort, and UNE Strategic Plan, we identified the limitations of the current course in addressing changes to the EC landscape in Australia. To seek stakeholders' perspectives, we sent an online survey to students in the course and met with the coordinator of the Diploma course offered by TAFE NSW. We also revisited the curriculum requirements specified by ACECQA to imagine how a new course structure might better address those requirements. The LDT and academic development units in UNE were involved in this initial process. From a pedagogical standpoint, we were inspired by Wells' (1999) *Spiral of knowing*. This model focuses on student collaboration, experience and content to develop knowledge and understanding, and references the cyclical nature of learning to continue to build on existing knowledge structures (Wells et al., 1999). We then developed the foundation of course design and submitted this to the University Executives for new course approval. More details on this part of the design process will be discussed in further publications.

2. Investigating the University's systems, policies and frameworks for the new course

Once the proposal to create a new course had been approved by the University Executives, the proposal needed to be fully developed in order to be approved by the Academic Board and accredited by ACECQA. Given the design of the course was different with a combination of 3 cp and 6 cp units, we spent some time initially researching how the course could be developed within the University systems, policies and processes. We interviewed colleagues across UNE including academic management, academics who were teaching smaller credit point units, and received advice from the academic development team. Consequently, the information was analysed in the context of the new EC course. From that stage, a series of workshops were conducted to provide opportunities for collaboration and sharing knowledge in developing the specifics of the course design.

3. Workshops

We conducted a series of learning design intensives (Benfield, 2008) in the form of workshops. These workshops were underpinned by Biggs and Tang's (2011) approach to course design, and maintaining constructive alignment and outcomes-based course development. Workshops were collaborative, involving all of the academic staff within the EC team, the LDT and academic development unit. Workshops also provided an opportunity for project updates and team communications. There were 8 workshops exploring the following topics:

- Workshop 1: The early childhood graduate
- Workshop 2: Course pedagogy and philosophy
- Workshop 3: Unit learning outcomes and assessment
- Workshop 4: Pedagogical review and authentic assessment
- Workshop 5: Pebblepad overview
- Workshop 6: Blueprinting for unit development and 3cp unit design

- Workshop 7: Developing marking criteria
- Workshop 8: LMS layout, grademark and course community site

One of the main objectives of the workshops was to ensure that learning outcomes, assessment and learning activities were aligned at the course level. With a focus on constructive alignment, the workshops created a space and time for staff to work together to consider holistic course design, developing graduate attributes, course learning outcomes as well as specific unit level learning outcomes and assessment (Biggs & Tang, 2011). Each workshop explored a theme, and stimulated ideas and prompted reflection for the ECT to formalise into course design. The workshops aimed to focus on play, teamwork and identity. For example, to consider the course learning outcomes and graduate attributes, in the first workshop we spent some time using craft to visualise the early childhood graduate at UNE. Workshop participants articulated and described what an ideal early childhood graduate would look like visually (see Figure 1). This was then used to identify key characteristics of the early childhood graduates which helped form the new course graduate attributes and course learning outcomes. A draft of the course learning outcomes was then written for review by the EC Team.

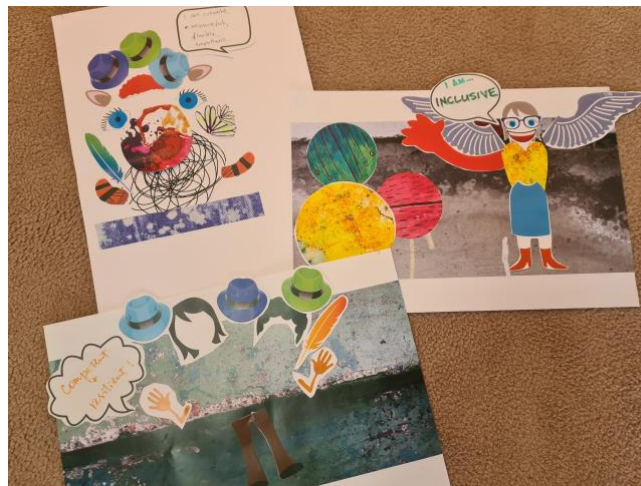


Figure 1: Visual representations of early childhood graduates as completed in workshop 1

4. Pedagogy review

Once the course and unit learning outcomes and assessment were drafted, the LDT conducted a pedagogic review for the EC Team. A pedagogy review is an important step in providing a feedback loop and acts as a reflective tool to promote discussion on how the course is being developed, such as:

- Constructive alignment of course learning outcomes to unit learning outcomes and assessment
- The prevalence of signature pedagogy throughout the course
- Variety of assessment
- Development of scaffolded thinking skills throughout the course underpinned by Blooms Taxonomy
- Alignment to UNE course development framework.

One example of our pedagogy review is the review of prevalence of signature pedagogy throughout the course. Signature pedagogies are important in course design as they lead knowledge acquisition and show the student how to analyse, evaluate and think critically in relation to the discipline (Shulman, 2005). Signature pedagogy often links to the core of the discipline, creating parallels to the related profession through the design of the course (McLain, 2022). As part of the workshops, the signature pedagogies identified as best suited to our student cohort and discipline for the new course is authentic learning, work integrated learning, social constructionist learning and student centred learning. The signature pedagogies underpinned the unit learning outcomes (ULOS) and assessment design. As part of the pedagogic review, we wanted to consider if the pedagogical approaches were evident throughout the design of the course, and relevant to the profession at a course level. To complete this, the assessment within each unit was reviewed and categorised into the most prominent link to the relevant signature pedagogy. For example, an assessment with a lesson plan was categorised as 'authentic assessment'. Sometimes an assessment fell into multiple categories. This was then graphed to show the spread of pedagogy approaches underpinning the design of assessment (see Figure 2). This graph was used to prompt discussion on the signature pedagogy throughout the course design and if further changes were needed in the design of the assessment.

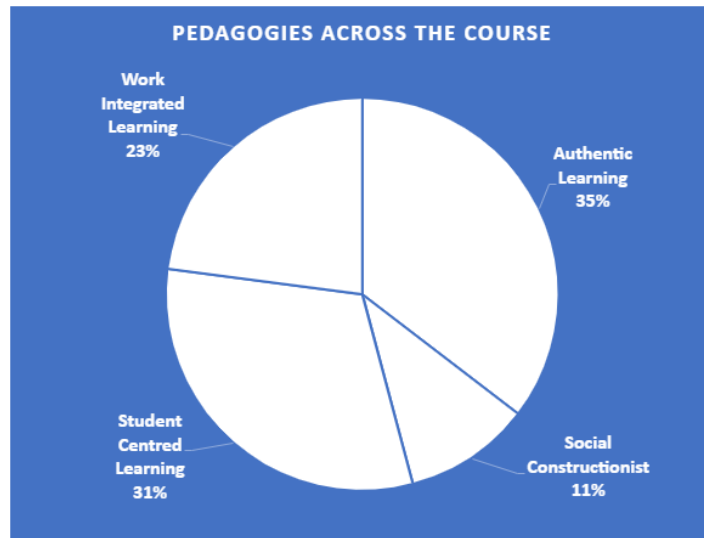


Figure 2: Analysis of signature pedagogies

In another example, the pedagogy review considered the scaffolding of cognitive thinking across the course by referring to Blooms Taxonomy. Blooms Taxonomy considers the cognitive learning skills of students within a specific content area, considering what students can do as a result of the content. This is often presented using verbs in learning objectives that articulate the cognitive difficulty of the task (Adams, 2015; Pappas et al., 2013). As Blooms taxonomy is presented in a hierarchy starting from lower order thinking skills to higher order thinking skills, the pedagogy review aimed to showcase the lowest and highest levels of cognition within each unit of study. The purpose of this was to map the scaffolding of student thinking skills throughout the course (see Figure 3). To assess the cognitive skills, we analysed and categorised learning outcomes according to the verbs associated with the learning outcome. This was then graphed according to Blooms Taxonomy, with 1 representing 'Remember' and 6 representing 'Create'. The LDT also made recommendations on where we felt thinking skills were more accurately represented, considering how students would complete the assessment task. This is shown as the green 'recommended' in the graph (see Figure 3). The graph showed the breadth of cognitive development per unit or module, and within a cluster (2x 3cp units and 1x 6cp unit) which then prompted discussion on the student experience and skill development throughout the course, and relevant changes were made as a result of this discussion.

Alignment of Blooms Taxonomy

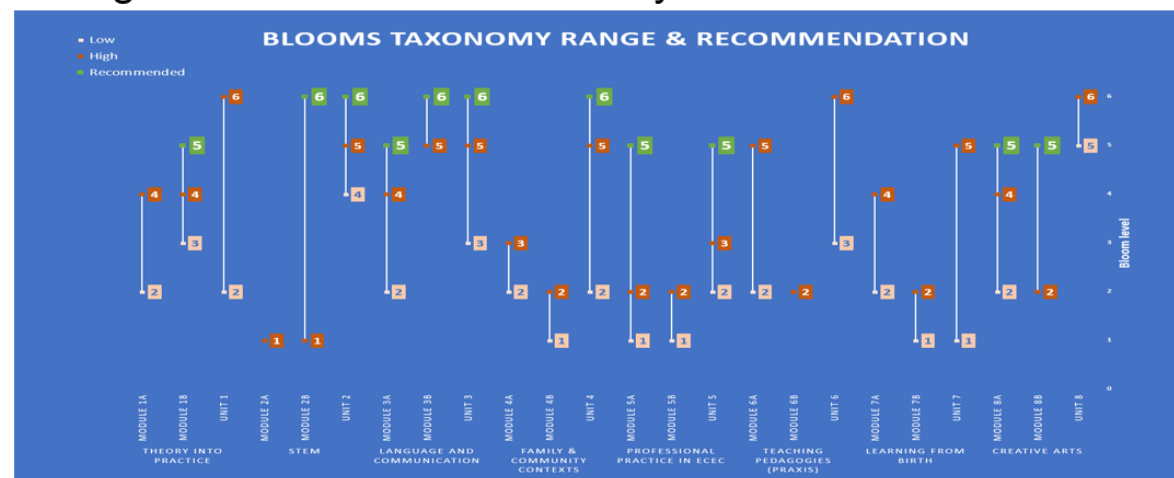


Figure 3: the scale of thinking skills per unit underpinned by Blooms Taxonomy.

Once the pedagogy review was conducted and learning outcomes and assessment finalised the unit forms were created for the UNE governance and approval processes, and course accreditation. The outcome of this course

development approach was that the proposal was approved through all relevant committees with no queries or changes. Additionally, the accrediting body approved the course with no changes. Whilst, more research is needed to determine the linkages between the course design process and the approvals process, it is seen as a strength of collaborative learning design.

Conclusions

The paper has outlined the learning design process utilised by the EC team and LDT for development of a new early childhood course. In sharing our practice, it is hoped that this paper is beneficial for other course designers, academic staff and other university staff involved in course design. More research is needed to determine the effectiveness of this approach and to identify if it promoted teamwork and cross-institutional collaboration, as well as to better inform course learning design best practice. Further research will also explore the 3 credit point unit design process, and the student experience of the course within the online environment to help improve the learning design process and development in online learning.

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