# Learning Design – A necessary enabler for implementing curriculum renewal

## What is learning design

The term learning design is commonly used to describe the endeavour of ‘educational notation’ (Larnacadeclaration.org, 2013), where a teacher/academic attempts to document their pedagogy in a visual format that can be easily shared and interpreted by colleagues.

As an enabler for curriculum renewal at UTAS, we propose that this generalised description of ‘Learning design’ be re-conceptualised as:

*A series of replicable processes for course and unit design that are underpinned by the use of design templates and review tools which:*

* *visually articulate the interrelationship between macro-level components of the curriculum and the intended sequences of assessment tasks, learning activities, feedback, instruction and topics*
* *enable academics to transparently and sequentially apply principles of constructive alignment and criterion referenced assessment in the review and design of curriculum*
* *primarily support the active iterative process of designing learning (not retrospectively justifying the design)*

## Principles informed curriculum design

This Curriculum White Paper is a call to enacting principles based curriculum renewal. In effect, it is a call to course teaching teams to firstly conceptualise a series of gradate personas that embody a series of principles encompassed within this white paper. Graduate personas are typically enacted via a series of course learning outcomes accompanied by a statement of curriculum philosophy. In order for these macro-level components of the curriculum to directly inform the unit level experiences of students, teaching teams will typically need to adopt a backwards design approach. One way in which this approach is enacted is through applying the principles of constructive alignment. [Biggs (2014, p. 5](#_ENREF_5)) describes constructive alignment as a:

*Design for teaching in which what it is intended students should learn, and how they should express their learning, is clearly stated before teaching takes place. Teaching is then designed to engage students in learning activities that optimise their chances of achieving those outcomes, and assessment tasks are designed to enable clear judgments as to how well those outcomes have been attained.*

This concept is central to a principles informed curriculum renewal as it requires course and unit designers to consistently situate acts of instruction and facilitation as being informed by learning outcomes and assessment. This student centred principle of backwards curriculum design is not new and is visible in a range of educational discourse that pre-date the term ‘constructive alignment’ being popularised in studies of higher education related literature. Consequently, there has been a variety of concerted efforts at UTAS to engender constructive alignment informed practice in various professional development activities and award units of study. However, despite these efforts and the dominant status of constructive alignment in higher education literature, it is contentious to suggest that normalised curriculum design practice at UTAS is a unilateral reflection of the backwards design, learning outcome informed mantra of constructive alignment.

The provision of replicable course and unit level learning design processes which model constructive alignment can serve as an enabler for implementing principles informed curriculum renewal. These processes would leverage existing professional development endeavours related to backwards design/constructive alignment through specifically supporting academics to visually develop and articulate how the respective components of curriculum function as a system of co-dependent relationships.

## The historical conditions that necessitate learning design

The re-design/renewal of existing curriculum can be described as a design challenge, in particular when design is described as an activity primarily concerned with ‘finding workable compromises’ and with ‘resolving tensions’ ([Collins, 1996](#_ENREF_13); [Kali et al., 2011](#_ENREF_28)). One of the conditions which typically shape this view that curriculum renewal is complex and challenging, is a higher education context where academics often view themselves as scholars of their discipline more strongly than as teachers ([Kember, 1997](#_ENREF_29)). There is often contrast between academics conceptions of teaching and aspects of their actual practice ([Eley, 2006](#_ENREF_20); [Kali, Goodyear, & Markauskaite, 2011](#_ENREF_28)). In parallel, academics enjoy a significant level of autonomy to select teaching methods ([Bennett et al., 2011](#_ENREF_4)) and this work in curriculum and learning is commonly implicit and based on normative practice ([Conole & Wills, 2013](#_ENREF_15)).

Undergraduate qualifications have historically evolved as a collection of units which are often siloed affairs ([Brawley et al., 2013](#_ENREF_7)) where structural determinations are informed by historical or logical categorisation of a discipline. An ALTC report described teaching in higher education as an intensely private activity, usually carried out by individuals behind closed doors ([Harris, Farrell, Bell, Devlin, & James, 2008](#_ENREF_24)), reflecting the sentiments of [Sadler (2013, p. 3](#_ENREF_47)) who described teaching as a “secret garden”. Due to this heritage, collective ownership of curriculum is still relatively unusual in contemporary Australian universities.

At unit level, curriculum design and documentation (unit outlines) remain the preserve of individual academics ([Bennett et al., 2011](#_ENREF_4)), and are often subjected to ‘adaption’ where unit curriculum will progressively drift from the purpose it had been designed and documented to serve (e.g. progressive mismatch between unit outlines or course mapping, and units-as-delivered). Additionally, when the unit outline is used to undertake unit design it is problematic as it typically dissects the unit into separate parts so that the reader can gain a greater sense of how each part works ([Ackoff, Magidson, & Addison, 2006](#_ENREF_1)). This approach can hinder capacity to view the overall ‘interdependencies and interactions’ ([J. Jones, Bosch, Drack, Horiuchi, & Ramage, 2009, p. 1](#_ENREF_26)) of the unit. For principles informed curriculum renewal to be successful, visual learning design processes will need to be readily available for use by course and unit designers to collaborative review and re-design curriculum.

## Learning Design as a path forward

Providing academics with accessible and adaptable learning design tools can serve as a vehicle to shift academics thinking about their practice away from an implicit belief based approach ([Conole, 2009](#_ENREF_14)). Learning design has been typically associated with the design and representation of online teaching ([Agostinho, Bennett, Lockyer, & Harper, 2011](#_ENREF_2)), although learning design processes can play a powerful role within curriculum renewal by enabling efficient review and re-design of curriculum. The production of learning designs serve to make curriculum and pedagogical decisions visible, explicit and shareable; whereby enabling academics to have a common vernacular ([Conole & Wills, 2013](#_ENREF_15)) to share and adopt curriculum and learning design practice with their peers ([Bennett et al., 2011](#_ENREF_4); [Keppell, Suddaby, & Hard, 2011](#_ENREF_30)).

There is a plethora of tools which fall under the umbrella of ‘learning design’, although many have been built on assumptions about “what users do, how they think and the contexts in which they work and use these tools”([Kali et al., 2011, p. 129](#_ENREF_28)). Meanwhile, tools such as the Learning Activity Management System (LAMS) ([LAMS Foundation, 2015](#_ENREF_34)) and Compendium LD ([Open University, 2015](#_ENREF_43)) provide a wealth of guidance for teachers in the design of learning; but can require a significant time investment for academics to achieve mastery ([Kali et al., 2011](#_ENREF_28)). Within the context of principles informed curriculum renewal, these tools are unlikely to play a systemic role due to their complexity and intended purpose as guidance tools. Learning design processes need to be accessible, immediate, replicable and adaptable focused on enabling academics to visualise and conceptualise their practice to enable collective revision by teaching teams.

## Normalised learning design practice at UTAS

When there are no commonly available processes for learning design, the practice of designing curriculum can often be categorised within at least one of three generalisations:

* Ideas for components of curriculum (or clusters of knowledge and skills) are visually organised as a mind-map using paper or dedicated software.
* The relational work of ‘aligning’ curriculum is performed using a tabular interface such as a spreadsheet or graph.
* Reporting templates such as course schedules, unit outlines and new course/unit forms are utilised to formulate the curriculum.

Curriculum design practice which can be situated under the first two generalisations is largely dependent on individual academics being exposed to these methods by their colleagues, or that they have acquired methods of curriculum development through professional learning. For academics who have not being exposed to these two enablers, it is probable that they will resort to an approach to curriculum design which relies on the adaption of reporting templates.

Listed below are three current UTAS reporting templates that serve a design function in the absence of accessible learning design processes and tools.

The course schedule – This grid typically articulates the sequence of units which will be offered over the delivery period of the qualification. This control panel view of the qualification can facilitate discussions between academics deciding which units to plug into the course structure. It provides capacity for design decisions to be made in lieu of a process where course learning outcomes are conceptualised as a series of intended learning outcomes that are subsequently grouped into units of study.

A curriculum map – Mapping individual units to overarching learning outcomes is often a retrospective exercise especially for programs that pre-date criterion referenced assessment and the Learning and Teaching Standards project. This practice of ‘retrospective mapping’ can be extended to new course design as a means to verify or justify design decisions that have already been made, informed by considerations that may be logistical, personal and/or historical.

The unit outline - This document is primarily intended to serve as an enabler for students to determine what the expectations are to successfully complete the unit. Each of the unit elements such as intended learning outcomes, assessment tasks, learning activities and instruction are presented separately. Consequently, it can be difficult for the unit designer to develop a working conceptual map which articulates the interrelationship between each of the elements in the unit, as per the earlier discussion of constructive alignment.

## How can Learning Design work within the multiple components of curriculum renewal

The table below provides a succinct overview explaining how various components of curriculum renewal can be enhanced or furthered through the provision of learning design processes and tools.

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| **Course Design** | Ensures that course development is a backwards design activity commencing with macro level definitions of the intended graduate(s) | Engenders development of units which are primarily informed by a series of intended learning outcomes that define the threshold knowledge and skills for each of the course learning outcomes  | Discourages use of the course schedule as a design tool where units are placed in a structure based on their coverage of discipline knowledge  |
| **Unit Design** | Models backwards design through forcing unit designers to physically align unit elements  | Makes constructive alignment and its relationship to criterion referenced assessment visible | Enables unit designers to work to tight deadlines through provision of criteria to self-evaluate their design |
| **Blended Learning** | Enables academics to document how they would ideally facilitate and assess the unit and use this as the basis for selecting appropriate online technologies | Focuses academics attention on enabling blended learning through adapting assessment design and/or sequencing of learning activities and instruction | Discourages a technology first approach where technologies are selected on their appeal separate to their capacity to enable students to achieve stated learning outcomes |
| **Course Level Curriculum Mapping** | Retrospective mapping exercises *(often conducted by a small subset of academics)* can be validated by the production of learning designs *(produced by the relevant unit coordinators)* which present a unit on a single A3 sheet of paper | Enables a shift of course level curriculum mapping from a retrospective exercise to one where the curriculum map is a critical stage of design and a live document from thereafter | The diagrammatic system presentation of unit level curriculum provide teaching teams with the capacity to collaboratively conduct curriculum review through laying multiple learning designs on a table |
| **Peer Review** | Feedback can be considered in-situ through editing the source design and interrogating the relationships between course and/or unit elements | Enables quick review and feedback through the diagrammatic presentation of curriculum and the design for teaching | Standard design tools enable course/unit designers to solicit prompt feedback from people performing varied roles, e.g. course coordinator, colleague, educational technologist, academic developer, etc |
| **Teaching efficiency** | Diagrammatic presentation of course and unit design enables the relationships between learning outcomes, assessment and instruction to be considered in terms of relevance, frequency and volume | The system view of a unit enables designers and reviewers to easily consider human and physical resource implications for the teaching and assessment | Enables teaching teams to collaboratively consider and document teaching responsibilities based on strengths, interests and broader workload considerations |
| **Annual Course and Unit Evaluation** | Provides course and unit coordinators with succinct diagrammatic representations of curriculum and teaching that can be easily evaluated | Provides capacity for evaluation to be informed by a balance of performance related data and critical review of the curriculum as a system | Enables proposed design changes to be made to working design documents whereby curriculum renewal resource implications can be considered at the time of evaluation |
| **Course and Unit Approval process** | Design is cyclic, considering the detail of unit level design for course approval often informs changes to the CLO’s, more likely to get the course design right from the outset | Through design expectations being explicit, there is greater capacity for course and unit designers to work within tight deadlines as they will have greater confidence that their work will be endorsed in relation to its quality | Self-review tools provide approval committees with the capacity to require unit designers to self-regulate, thus enabling greater emphasis on quality enhancement considerations over quality assurance at the time of approval |
| **Experiential Professional Development** | Enables persons working within academic development roles to model a replicable process to academic staff in a timely manner when academics actually need to review and design curriculum and their teaching | Provides a means to conduct training needs analysis based on the requirements of the curriculum and design for teaching | As a series of replicable processes, academics can support colleagues to re-apply these in their practice |

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