Towards a University Educational Framework

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This poster exposes a draft university-wide educational and educational technology framework for discussion. Its purpose is to guide educational policy making, particularly for educational technologies. The framework is based on a general conceptual framework of learning and a set of design principles for a contemporary learning environment. The framework is expanded by considering which learning activities and technologies are best suited to actualizing these design principles.

Keywords: Conceptual framework, learning, teaching, educational framework

Introduction

Under the guidance of the Educational Technology Committee at Murdoch University, I started the development of an educational framework which could guide a range of policy, including educational technology, initiatives. This educational framework was crafted in the context of Murdoch's current strategic directions, implementing a 'contemporary learning environment'. Such an environment needs to provide an equivalent learning experience for all students, across all campuses, on- or offshore, and on- or off-campus. It should also support an international perspective, and facilitate work-integrated learning, as well as the development of Murdoch's graduate attributes. In the context of the government's expanded tertiary education agenda, a contemporary learning environment also needs to support:

- a student population from diverse academic, socio-economic, linguistic and cultural backgrounds;
- a student population for whom study is not the only priority, who choose to study at different places, at varying times, and choose to attend or not attend formal classes;
- formal and informal learning;
- a sense among students that they are part of the Murdoch community.

Conceptual underpinning

This framework is predicated on the concept of a learning community – a community of scholars; and it is driven by one underlying principle: **a focus on learning**. Ultimately, learning is a cognitive activity done by individual learners, but it can be facilitated by teachers. In other words, learning has more intrinsic value than teaching.
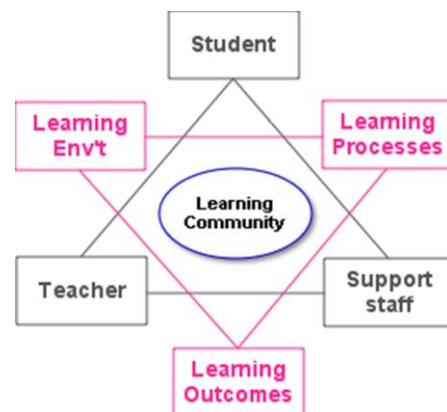
To take this vision further, it is helpful to consider learning as having three inter-related components, the Learning Environment, Learning Processes and Learning Outcomes (called the LEPO framework) (Phillips, McNaught, & Kennedy, 2011). Three actors engage with these components to form a learning community, as shown in Figure 1, that is, teachers, students and support staff. The LEPO framework draws on other work, namely:

- Biggs' Presage, Process, Product (3-P) model (1989);
- Laurillard's conversational framework (2002);
- The Learning-centred Evaluation Framework initially conceived by Bain (1999);
- Reeves and Reeves' model for interactive learning on the Web (1997); and
- Goodyear's problem space of educational design (2010).

The Educational Framework

The preceding discussion, and the literature on learning and teaching in higher education, leads to the following design criteria for learning environments which support flexibility and diversity (Derived in part from Mitchell, Matthews, Pospisil and White (2009) and the broader Learning and Teaching literature.). We

Figure 1. Figure 1. Interaction between learning environment, processes and outcomes and teachers,

have identified three elements: *learning elements, teaching elements* and *community elements*, shown in Table 1. These design principles are aligned against the LEPO framework in the inner sections of Figure 2, which graphically describes the entire educational framework.

Table 1. Design Principles for a contemporary learning environment.

Learning Element	Design criterion/principle
Individual learning	Learning is undertaken by individuals
Interaction with others	Learning is facilitated by interaction with others
Construct new knowledge	Learning is an active search for meaning by the learner, using current knowledge to make and maintain cognitive connections
Authentic tasks	Learning comes from performing meaningful and authentic tasks
Informal learning	Much learning takes place informally and incidentally, and is driven by curiosity
Learning how to learn	Students can learn how to learn

Teaching Element	Design criterion/principle
Constructive alignment	There is alignment between intended learning outcomes, assessment and learning tasks
Scaffolding	Teachers *scaffold* learning tasks so students can build on their existing knowledge
Facilitating learning	Teachers can assist students to learn by designing learning tasks and classroom activities which engage students with complex ideas in meaningful ways.
Graduate attributes	Graduates can demonstrate a range of lifelong learning skills and graduate attributes

Community Element	Design criterion/principle
Student wellbeing	Students feel that they are part of the Murdoch community, thus facilitating their continuing success at university.

The next layer of the framework in Fig. 2 portrays the generic types of activities which support learning in the broad sense which has been defined here and which can underpin the learning principles in Table 1. Rather than considering learning and teaching activities in terms of traditional terms (e.g. lecturing, tutorials), I choose to work generically, to avoid falling into traditional ways of thinking. Fig. 2 characterises 17 generic learning activities and teaching activities. The outer circle of Fig. 2 lists specific technologies which can provide the technology-supported functionality required.

Observation of Fig. 2 will reveal that multiple technologies can support particular learning and teaching activities (e.g. Group learning activities). Similarly, multiple learning and teaching activities can be supported

by a particular technology (e.g. LMS forums). Where technologies are used in multiple locations, the extra instances are shaded differently. Note that educational technology is not always appropriate for a given learning or teaching activity (see Learning Activity 6. Becoming an expert). Further, the desired learning outcomes and particular context determine the appropriateness of using educational technology.

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