

Guidelines to construct a Learning Design Sequence

Rationale

A protocol has been developed to illustrate a learning design in a temporal format to provide a standard form of communication to describe different kinds of learning designs and highlight the key features of each design.

The basis for this construct is informed by the work of Oliver (1999, 2001) and Oliver and Herrington (2001) that identifies the critical elements required in a learning design, particularly when ICT mediated. The critical elements comprise the content or *resources* learners interact with, the tasks or *activities* learners are required to perform, and the *support* mechanisms provided to assist learners to engage with the tasks and resources. This is illustrated in Figure 1.

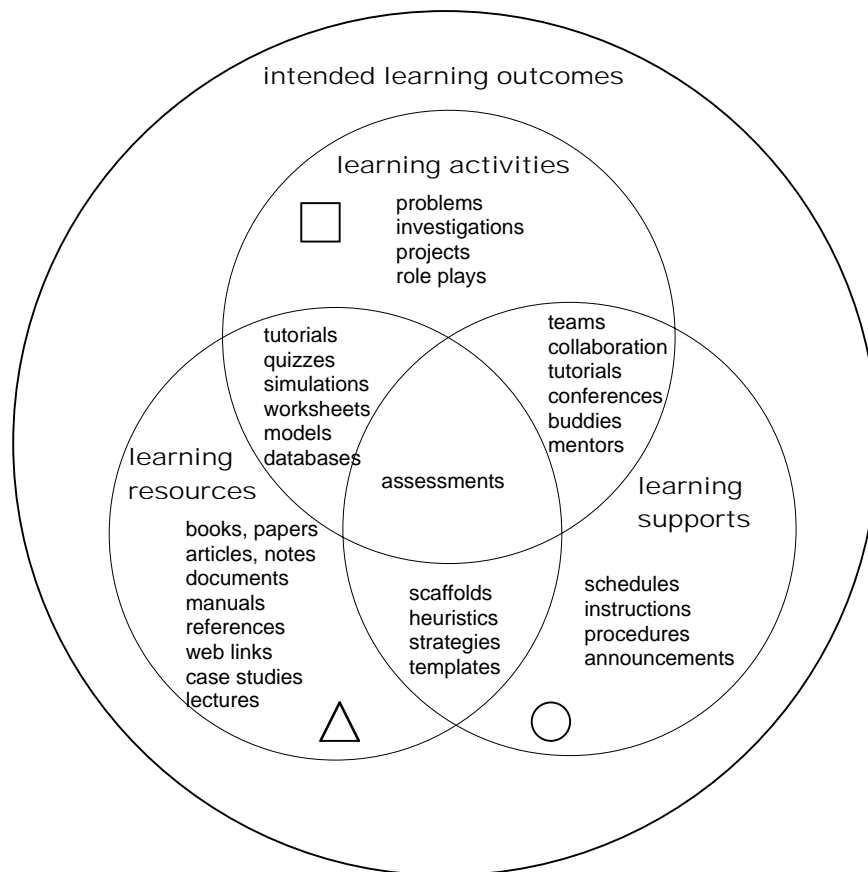


Figure 1: Components of a learning design

Sequence representation of a learning design

The sequence of a learning design outlines the components shown in Figure 1 as they are used over time. Thus, the sequence illustrates the learning activities, the resources and supports, plus the artefacts the students produce to arrive at the final component of the sequence which is the learning outcomes.

Representing learning activities: The learning activities are represented by a series of rectangles, arranged vertically. These activities represent the learner's "journey". Each rectangle has a description of what the learners are required to do or produce. Activities that are assessable are distinguished with an asterisk (*).

Representing learning resources: Learning resources are represented by triangles to the left of the activity sequence. An arrow from a resource (triangle) to an activity (square) indicates that resources are available to the student when doing the activity. An arrow from an activity (square) to a resource (triangle) indicates that a resource is produced during the activity and becomes a resource for others to use later.

Representing learning supports: The learning supports are represented by circles to the right of the activity sequence. An arrow from a “circle” to a “square” indicates that support strategies are being used to assist the students in their learning.

Representing different combinations of activities, resources and supports: Resources and supports can be specific to an activity, they can be introduced before beginning an activity or when an activity is complete, or they may be available for the entire duration of the learning experience. To represent this graphically, the following convention is suggested:

- If learning resources or supports are limited to particular activities, their availability is represented with a horizontal arrow to the specific activity for which they are available. If a learning resource or support is available for multiple activities then the resource triangle and/or support circle is drawn once (where it is firstly introduced to the students) and a vertical arrow indicates the resource and/or support is available for period of time.
- If students produce artefacts from a learning activity that are used as resources for subsequent activities, an arrow is drawn from the activity to the resource.

An example illustration of a learning setting in a temporal format is provided in Figure 2.

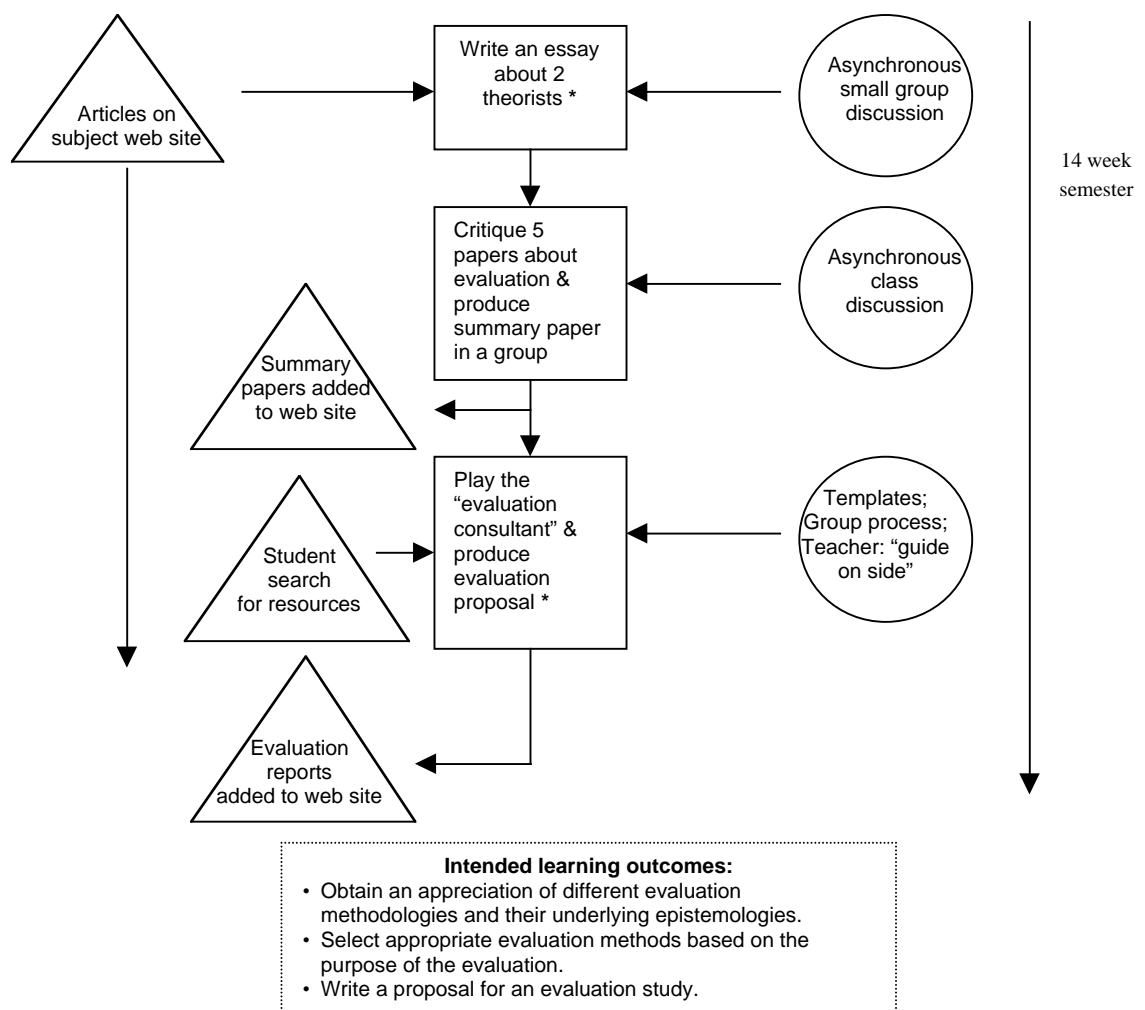


Figure 2: An illustration of a learning design employed in a fictitious Educational Technology subject about Evaluation methods.

Where the activities are different for different learners or activities are concurrent, the activity sequence would be represented by parallel activity components for that section of the sequence. An example is illustrated in Figure 3.

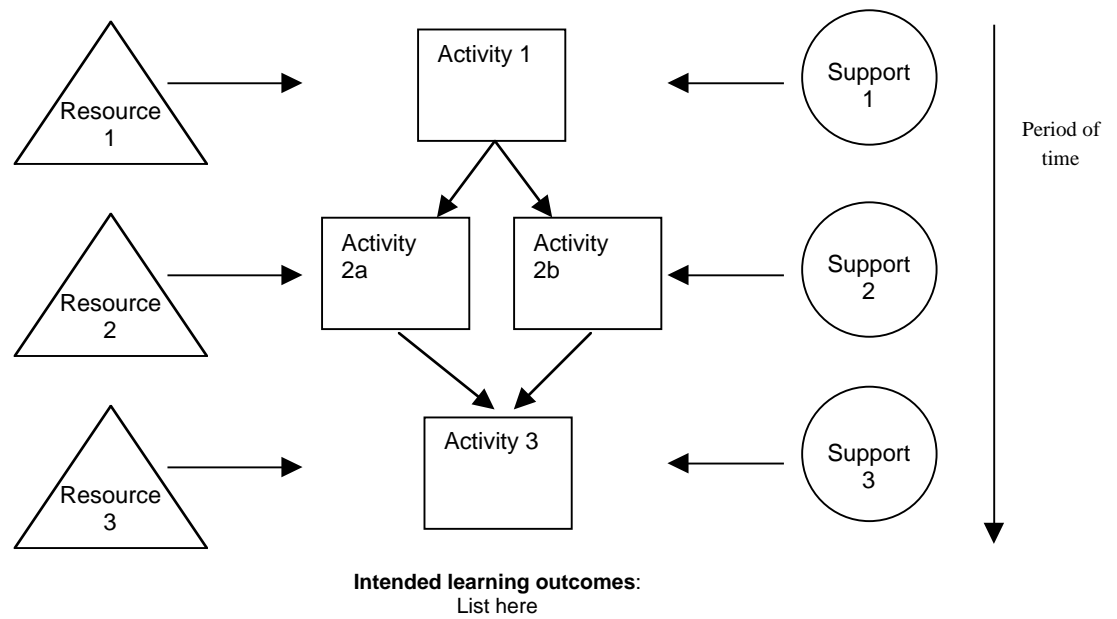


Figure 3: Example of concurrent activities

References

Oliver, R. (1999). Exploring strategies for on-line teaching and learning. *Distance Education*, 20(2), 240-254.
 Oliver, R. (2001). Seeking best practice in online learning: Flexible Learning Toolboxes in the Australian VET sector. *Australian Journal of Educational Technology*, 17(2), 204-222.
 Oliver, R. & Herrington, J. (2001). *Teaching and learning online: A beginner's guide to e-learning and e-teaching in higher education*. Edith Cowan University: Western Australia.