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# Transitioning an independent learning model to an on-line environment

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## Abstract

In this paper, we adapt an existing on-campus model for developing independent learning skills to the online environment. The on-campus model adapted was designed to support the independent learning skills of self-management, critical thinking and creative thinking. The model addressed the aspects of contact structure, assessment tasks and feedback processes. A key feature of the model was small group work and frequent formative feedback, which we wanted to retain in the online environment. We therefore designed an approach whereby students participate in group work through a structured mix of synchronous and asynchronous activities. Feedback is provided on the outcomes produced and the group processes. A number of interesting issues with implications for educational practitioners emerged through our reflections on the transition of the model to the online environment. One was that concerns about the difficulties of group work online led us to a design that reduced the control that online students had over their learning. For instance, online students were given less freedom in the choice of assessment topics, and more direction was provided regarding interim tasks and deadlines. This was due to concerns about the difficulty of establishing student responsibilities and resolving conflicts in the absence of face-to-face contact. A drawback of providing greater direction is that, paradoxically, it diminishes students' opportunities to develop the very self-management skills independent learners require. Another interesting consideration that emerged was in relation to the motivation generated by requiring students to interact synchronously, requiring them to present knowledge and 'perform' in front of their peers. This is analogous to students doing formal class presentations on-campus. Having a small number of such synchronous interactions is feasible. To maximise the benefits of these few sessions, we ensured that a number of interim activities led up to them, and that these activities were linked to assessments, along with students' performance in the session itself.

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## Introduction

In this paper we are interested in examining how off-campus students who are learning online might be supported in developing independent learning abilities. We describe how we have taken an on-campus learning model, which was designed to support independent learning, and have transitioned this model to the online environment. We begin by looking at the literature as a basis for determining what independent learning is and then we identify some pedagogical elements that could support such learning. Following this we describe the on-campus learning model and some of the key findings of an evaluation study of this model. We then describe how we transitioned the on-campus model to an online model and the major challenges. These challenges include the difficulty for groups of online students to meet synchronously which was a primary form of feedback in the on-campus model. We believe that this, and other pedagogical difficulties that we faced, will be routinely faced by other online educators. As such the main contribution of this paper comes from the reflection on

the choices we made and pedagogical implications of those choices. An important aspect of this reflection is the specific limitations that might be encountered in an online environment and how these relate to broader pedagogical theory and practice.

## Independent Learning

The concept of 'independent learning' and 'independent study' has been interpreted in various ways. According to Moore (1973), the crucial ingredient is learning autonomy which is defined as 'the will and ability to exercise powers of learning, to overcome obstacles for oneself, to try to do difficult learning tasks [...]' (p. 667). Eneau (2008) discusses the role of interdependent relationships on developing autonomy, in particular the social aspects of learning, such as collaborative learning. In our previous work (Mitchell, Zutshi & Weaver 2010), we suggest that, rather than debating definitions of independent learning, it is more useful to identify the following **high-level (generic) skills** that independent learners should possess:

1. Self management skills, especially time management skills (Baird 1988, p. 142).
2. Critical thinking, including being aware of the underlying suppositions of one's thoughts and beliefs (Schumacher 1977, p. 54; Brookfield 2000, p. 94).
3. Creative thinking, to identify worthwhile goals and methods of achieving them (Baird 1988, p. 142; Laurillard 1993, p. 2).

From the literature, it is evident that the following **pedagogical elements** are important for supporting the development of the independent learning skills above:

1. Giving students increased autonomy over the conversation about their learning and its execution (i.e. control over both content and process) such as topics and their sequence (Ramsden 1992, p. 100; Moore 1973, p. 667).
2. Frequent customised feedback on student work, allowing changes prior to final assessment (in a manner analogous to HDR student supervision, building on Laurillard 1993, p. 2).
3. A creative element, in order to enable the individualised engagement with, and use of, learning materials described by Baird (1988, p. 142) and Eneau (2008, p. 231)
4. Social learning, not just individual - students should have opportunities to discuss their ideas and be exposed to different opinions (Eneau 2008, p. 230).

We designed (Mitchell et al. 2010) a model to support these elements in an on-campus environment, which is briefly described in the following sub-section.

## The On-Campus Model

To incorporate the pedagogical elements we consider necessary, the three **major aspects** of the design were the contact structure, assessment tasks and feedback processes (Zutshi et al. 2010).

Rather than lecture and tutorial times, the contact structure used was weekly 3-hour project workshops. In these workshops, the staff mentors had short meetings with each group (less than six students) separately during which the other groups worked on their assessment tasks. The assessment tasks were group-based projects, with groups of less than six students, which required a final report submission and class presentation. Students had to allocate tasks to group members in a project plan and progress on each task was discussed regularly

with the staff as a measure for policing individual contributions. The contact structure and assessment tasks allowed for frequent formative feedback on both group processes and draft submissions, which the students could incorporate prior to their final submission. This feedback was the main form of scaffolding as it provided a degree of modelling and supported students in taking risks and learning from their mistakes. This design allowed for the four pedagogical elements identified above. Our main finding using this model was that students reported very positive perceptions regarding the high level of feedback and support. Students also associated high-level skills development with group work.

## The Transition to Online Teaching

A main feature we wanted to retain in the online transition was students working and meeting in small groups. However, it is challenging to require online students to have frequent synchronous meetings. The absence of set class times and the marketing associated with online education both contribute to students' expectations that online study will fit around other priorities. Therefore our online model requires student groups to have a limited number of synchronous meetings which have specific outcomes and are recorded. Based on these recordings staff provide feedback on both the process and the outcomes of the meetings. We believe synchronous meetings offer benefits in that they focus student attention on a real-time meeting in which their knowledge and preparation is tested (students must 'perform' in front of their group members). It is also efficient for assessment purposes. There is a defined period on which assessment is based and the spontaneity reveals how prepared individuals were. Assessing based on the recording avoids many of the complications associated with assessing discussion forums alone described by Andresen (2009), such as the large volume of data, the fragmented nature of the discussion and making judgements of quality. That said, asynchronous communication does allow the exchange of ideas and opinions that are necessary for generic skill development and is an important part of the model. The comparison between the online and on-campus contact, assessment and feedback structures is shown in Figure 1.

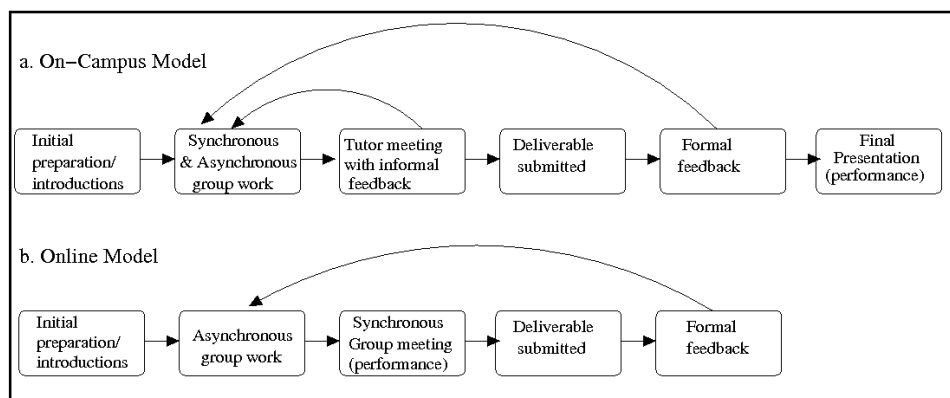


Figure 1

We also needed to adapt the four pedagogical elements that we identified with the on-campus model. Table 1 provides an overview of this adaptation showing how each element was implemented in the online and on-campus environments and the challenges encountered in mapping our elements to the online environment. It also illustrates which of the three design aspects were impacted by transitioning each element.

Table 1: Mapping the pedagogical elements to the online environment

Pedagogical Element	On-campus	Challenges in the Online Environment	Online	Design aspects affected
<b>1. Control over content and process</b>	Assessments allowing significant freedom in topic selection and project management.	Longer times required for student consensus on assessment topic selection due to largely asynchronous contact.	Some loss of control over assessment topics due to a limited set of topics being provided.	Assessment tasks
	Coordination of groups by the students is facilitated by the contact structure (process).		A synchronous activity is mandated for each major deliverable, i.e. some elements of group process controlled. Greater formalism of tasks required to complete the assessment.	Contact structure
<b>2. Allowing changes/mistakes</b>	Staff provide weekly feedback on drafts and student questions to each group in class. The idea is to allow students to take a risk, and possibly fail, but benefit from feedback for a later submission.	Difficulties in arranging synchronous meetings mean that staff must try and glean an understanding of the group processes and challenges from student submissions and multiple sources including discussion forums and meeting recordings.	The major group assessment requires a draft submission, which requires students to get feedback on both the group process and a draft submission i.e. the group outcome.	Feedback processes, contact structure, assessment tasks
<b>3. A creative element</b>	An element of role-playing required by each student in the groups. Assessment criteria that reward original ideas and thought.	Given the difficulties of synchronous contact between staff and each group, it is more difficult to allow variation in student topics and processes. Synchronous activities were difficult to organise, both for student only meetings and staff facilitation sessions.	An element of role-playing required by each student in the groups. Assessment criteria that reward original ideas and thought.	Assessment tasks, Contact structure
<b>4. Social learning</b>	Group work (in groups of less than 6 students) as the primary vehicle of learning (synchronous, i.e. face-to-face in class time).		Largely achieved through asynchronous interaction between students.	Contact structure
	Staff modelling of critical thinking, project management, problem solving and conflict resolution took place in group meetings with staff.		Staff modelling opportunities effectively limited to creative use of feedback opportunities e.g. feedback on drafts and submissions. This may be addressable to an extent through video conferencing, subject to schedule and workload constraints.	Feedback processes

On-campus group interaction is stimulated by the regular meetings with staff mentors in which agreements are made on what activities the group will undertake prior to the next meeting. The online model does not have these frequent meetings with staff and it is well known that student interaction online does not necessarily happen spontaneously; it has to be specifically designed for and encouraged (Salmon 2011). In our online model this was achieved by regular announcements of activities that although not directly assessable were necessary for the group's performance in the online meeting. In this sense they are similar to e-tivities (Salmon 2011). They include a range of tasks, for example nominating a group representative/leader and arranging common times for the synchronous meeting. These activities were initiated by announcements and were clearly connected to the assessment task. Our observation is that each of these stimulated significant student interaction either through the discussion forums or using other communication techniques/technologies that suited the students.

## **Reflecting on the online transition**

We discuss our reflection with respect to each of the four pedagogical elements and the mapping in Table 1. We believe other practitioners may be able to benefit from considering these points of reflection. We reflect on what worked well in each mode and what lessons can be learned from both experiences. Each of the elements is discussed below.

### ***Control over content and process***

There was a deliberate design decision to provide more structure and less creative freedom online, which effectively reduced the level of control students had.

The first area in which control was reduced was topic choice. The reason for this was that our on-campus experience indicated that selecting a topic often was a significant cause of delay in the commencement of project work. While we believe this aspect of creative control has significant benefits for students, given that we expected asynchronous contact to cause longer times in reaching agreement, we decided it was too risky.

The second was a loss of control over when items were due and much greater direction with respect to interim tasks and when they should be completed. Online students seemed to complete these tasks as directed. Interestingly, on-campus students who have less direction in this regard, often let their own self-imposed deadlines slip. Again, we think the lessons learnt by the on-campus students from the mistakes they made in terms of self-managing of their time are very valuable.

However, given that the online students were good at meeting the directed deadlines, perhaps it was possible to allow them greater choice in their topics by providing more structure and direction around that task.

We are aware that we did not offer the online students the same opportunities as on-campus students for self-management. We suspect it is easier to deal with student self-management issues (e.g. acceptance of responsibility and conflict resolution) in ongoing face-to-face meetings with the student groups to constantly manage expectations and conflicts.

### ***Allowing changes/mistakes***

Allowing students to make mistakes, and correct them based on formative feedback, is a significant source of learning. The model's most significant source of such feedback is the formal feedback on required interim submissions. Recorded meetings that do not include active participation of staff offer another avenue for feedback with the advantage that

staff can observe the group as it operates without the influence of the staff member. This can provide useful insights about individual group struggles with the task, their level of preparation and their understanding of the requirements. In fact, it seems that recorded meetings would also be useful for providing feedback to on-campus students.

### ***A creative element***

While the online students were limited in their topic choice (as described above) both the on-campus and online models allow creativity in how students address the topics they are given. The tasks are authentic in the sense that there is not one set answer.

### ***Social learning***

We have earlier emphasised the importance of team-based learning in small groups for developing independent learning, as it is through these social elements that many generic-skills are developed. It appears that these skills can be provided between students online through forums as well as they can be in the on-campus model (evidence for this is discussed by Andresen, 2009). However, our impressions are that the need to perform in real-time in front of their peers seems to be highly motivating for students, particularly formal presentations but to some degree also face-to-face meetings, which on-campus students experience. The recorded meetings are a substitute for this and our observations suggest that these are motivating for students, which is consistent with the literature on asynchronous interaction described by Hrastinski (2008). But social learning from the staff mentor is severely restricted in the online model, as they do not experience the critical thinking modelling and clarification routines (as per Lampert, Beasley, Ghousseini, Kazemi & Franke 2010) that the on-campus students receive.

## **Conclusion and Future Work**

The key challenge in adapting our model to the online environment was *not* a technological problem. Rather, the challenge stems from our emphasis on group work, particularly some synchronous group contact. There are, of course, technological methods of having synchronous meetings online. However, in our experience, students expect online learning to fit around their other priorities, making frequent synchronous meetings difficult for students to arrange. This is the second major challenge. We were concerned that this approach by students to online learning would risk students being delayed in completing intermediate tasks, or would result in students simply dividing tasks and working largely in isolation. Therefore, to reduce this risk, our solution was the imposition of more structure around the contact, the assessment tasks and the feedback. A drawback of this solution is a likely reduction of opportunity for students to develop self-management skills.

Our reflection has highlighted to us that the synchronous meeting can be highly motivating for students, possibly because of the elements of presentation and performance before one's peers.

We do not expect students to become fully developed, independent learners as a result of studying a single unit. What we would like to investigate, though, is to what extent the aspects of our online model contribute towards students' development as independent learners.

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