Chapter XIV

The Role of the Online Instructor as a Guide on the Side

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Abstract

We present research results and advice on the role of the online instructor in relation to a particular example of technology-supported learning and teaching — the use of asynchronous discussion forums. Pedagogical issues and studies discussed here are based on six years of designing, coordinating, and teaching into Swinburne Astronomy Online (SAO), an online international program. We discuss some implementation issues associated with the use of asynchronous forums and the induction of instructors, plus the role of the online instructor as a “guide on the side.” As an example of issues involved in maintaining a constructive online learning environment, we discuss strategies used to accommodate students with varying degrees of prior learning. We also summarise results of our research on student-instructor interactions, plus feedback on students’ and instructors’ perceptions of the online experience. The results of this research are used to inform the induction and mentoring of instructors in SAO.
Introduction

Designing and implementing a completely online program from the ground up presents both rewards and considerable challenges to anyone with an interest in curriculum design, in general, and online education, in particular. The use of online communications represents a key enabling technological tool for the delivery of online education. The case study discussed in this chapter is set within the context of designing, developing, and running an international online program featuring asynchronous discussion forums as a central part of the learning and teaching process. Our analysis of factors that influence the success of online delivery supported by asynchronous forum discussions is informed by both our research and practice.

The authors are the designer and original coordinator (MM) and the current coordinator (SM) of Swinburne Astronomy Online (SAO), a fully online master’s program in astronomy. At the stage when SAO was first designed and implemented as a pilot scheme in 1999, there was little if any conventional wisdom, anecdotal or otherwise, about how to run international online programs. The whole project provided an opportunity for creative curriculum design, as well as the usual number of false starts while attempting to establish what did and did not work in the SAO context.

After the success of the pilot scheme, SAO launched a master’s degree in 2000, and student numbers have since grown from 50 to about 250 per semester. The student cohort is allocated into approximately 10 instructor moderated discussion groups. SAO students are typically articulate, enthusiastic adult students (average age mid 40s) who are residents from more than 30 countries and share a passion for astronomy, but generally lack any prior experience of learning online. Their backgrounds and educational experiences vary greatly, ranging from PhDs in chemistry, degrees in engineering, medicine, science, and humanities, right through to those who have not studied for over 30 years but are keen amateur astronomers.

In the first part of this chapter, we discuss the role of asynchronous discussions in SAO as a case study in online delivery. We identify the challenges posed by the need to provide online induction of new instructors, manage the volume of forum discussions, and handle widely varying levels of student expertise. We also outline strategies that we implemented in SAO in response to these issues. In latter sections of the chapter, we outline some of the results from our evaluative research studies based on the SAO database of discussion forum postings and survey responses of students and instructors. We discuss the often counter-intuitive conclusions suggested by this research about ways in which instructors and students interact in asynchronous online discussion forums, and we suggest implications for the induction and professional development of instructors.

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