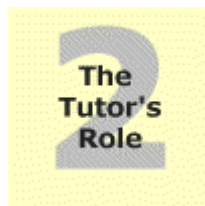




Online Tutoring e-Book

Editor Carol Higgison



Chapter 2 The Tutor's Role and Effective Strategies for Online Tutoring

Sarah Cornelius, Distance and Online Learning Consultant, UK

Carol Higgison, Heriot-Watt University, UK

Contact information

This document has been published by OTiS (the Online Tutoring Skills Project) based at:

The Institute for Computer Based Learning, Heriot-Watt University, Edinburgh, EH14 4AS
and The Centre for Open and Distance Learning, The Robert Gordon University, Schoolhill,
Aberdeen, AB10 1FR.

URL: <http://otis.scotcit.ac.uk/onlinebook>

Date: February 2001

First edition

ISBN 0-9540036-3-2

Copyright

©2000 Heriot-Watt University, The Robert Gordon University and the original authors

All rights reserved. Apart from fair dealing for the purposes of research or private study, or criticism or review, as permitted by the Copyright, Designs and Patent Act 1988, this publication or any part thereof may not be reproduced stored or transmitted in any form or by any means without the prior written consent of the publishers. Except that (a) for courses of instruction or distribution within UK higher education institutions this publication or parts thereof may be copied without charge, provided that the source and publisher's copyright are indicated in any such reproduction, (b) for courses of instruction by any of the participants in the Online Tutoring Skills e-Workshop this publication or parts thereof may be copied without charge, provided that the source and publisher's copyright are indicated in any such reproduction and (c) authors retain their personal right to re-use the material in future versions or collections of their own work.

Whilst every effort has been made to ensure the accuracy of the information in this book, the publishers wish to emphasise that they cannot accept any liability for any errors which remain. Further, the views expressed in each of the chapters are primarily those of the stated authors and whilst the publishers endorse the value of all the contributions, the views expressed are not necessarily those of the publishers. Please notify us of any factual errors, for correction in future editions.

OTiS (the Online Tutoring Skills Project) is funded by The Scottish Higher Education Funding Council under the ScotCIT Programme (<http://www.scotcit.ac.uk>).

Preface

Clarifying the role of the online tutor and establishing effective strategies for supporting students' learning online were two of the key objectives of the OTiS e-Workshop¹. The e-workshop established a community of online practitioners (academics, faculty, lecturers, instructors, staff developers, facilitators and trainers) from education and business who could share their expertise and reflect on their practice.

One of the key questions was 'to what extent and how do the roles and skills of the online tutor differ from those employed in face-to-face teaching?' Through case studies and online discussions we attempted to clarify the role of the online tutor. This chapter is a synthesis of these discussions.

This chapter reviews the roles of an online tutor, offers examples of current practice and presents guidelines and strategies for effective practice in online tutoring. We believe that a clearer understanding of the roles and skills required by online tutors will assist those already in the field who wish to improve their practice, and help those new to online teaching.

Two participants from the e-workshop, Sarah Cornelius and Carol Higgison authored this chapter. Sarah was a rapporteur during the e-workshop, summarising and reporting on the key highlights of each day's discussion, Carol was one of the e-workshop organisers.

The success of the e-workshop was due to the interest and enthusiasm of the participants and their generosity and willingness to share their experiences and expertise. We hope that the participants in the e-workshop agree that they became part of an active and supportive online learning community.

My sincere thanks to all the participants and, in particular, the authors whose commitment extended long beyond the end of the e-workshop.

Carol Higgison
(editor)

The Online Tutoring Skills Project is funded by the Scottish Higher Education Funding Council.

¹ The OTiS International e-Workshop on Developing Online Tutoring Skills was held between 8–12 May 2000. It was organised by Heriot-Watt University, Edinburgh and The Robert Gordon University, Aberdeen, UK.

Contents

<i>Preface</i>	<i>2.iii</i>
<i>Contents</i>	<i>2.iv</i>
1. Introduction	2.1
1.1 What is an online tutor?	2.1
1.2 The online context	2.1
2. Online tutoring: an emerging pedagogy	2.3
2.1 Can we learn from face-to-face pedagogy?	2.3
2.2 What is different about online tutoring?	2.3
2.3 What are the special demands that online tutors face?	2.4
3. Perspectives on Online Tutoring	2.5
3.1 The student's perspective	2.5
3.2 The activity-related perspective: what an online tutor should do	2.7
3.3 The role-related perspective: what an online tutor should be	2.8
4. Examples of practice: experiences	2.12
4.1 Experiences of tutors	2.12
4.2 Course Experiences	2.14
4.2.1 Facilitating mutually supported learning online	2.14
4.2.2 Tutoring in real time (text based) environments.....	2.15
4.2.3 Conducting real time online classes: beyond text.....	2.16
5. Examples of Practice: strategies and techniques	2.18
5.1 Technology issues	2.18
5.2 Tools, techniques and structures for online learning	2.19
5.3 Participation issues	2.21
5.4 Towards autonomous learners	2.22
6. Encouraging effective practice: getting started	2.24
6.1 Managing expectations	2.24
6.2 Building a learning community	2.25
6.3 Encouraging online discussion	2.27
6.4 Effective administration	2.28
7. Encouraging effective practice: promoting learning	2.30
7.1 Maintaining online discussion and promoting interaction	2.30
7.2 Encouraging deep learning and reflection	2.31
7.3 Ensuring progress	2.33
8. Encouraging effective practice: feedback and assessment	2.36
8.1 Feedback	2.36
8.2 Strategies for assessment	2.37

9. Preparing to go online	2.39
9.1 Guidelines for online tutoring	2.39
9.2 Preparing to tutor online	2.41
10 Executive Summary: towards effective practice	2.43
10.1 What should an online tutor be doing to be flexible?	2.43
10.2 Three views	2.44
Appendix 2.A References and Sources	2.46
2.A.1 Conference sources cited for this topic	2.46
References to OTiS Case Studies	2.46
References to OTiS Discussions.....	2.48
2.A.2 External references	2.50
2.A.3 Authors Details	2.51



2 The Tutor's Role and Effective Strategies for Online Tutoring

Sarah Cornelius and Carol Higgison

1. Introduction

The OTiS e-Workshop held in May 2000 brought together experienced online tutors to share their experiences and reflect on their practice. The keynote presentations, case studies, discussions and online chats have produced a rich and detailed picture of how tutors have adapted and changed their roles to meet the challenge of the online environment and developed new skills to meet the needs of online students.

This chapter reviews the roles of an online tutor, offers examples of current practice and presents guidelines and strategies for effective practice in online tutoring. We believe that a clearer understanding of the roles and skills required by online tutors will assist those already in the field who wish to improve their practice, and help those new to online teaching.

We draw primarily on contributions to the OTiS e-Workshop and on some published literature. Along the way we will try to answer some of the questions that were posed during the OTiS e-Workshop (Clarke-D 2000a):

- Why do we still think that online tutoring can principally draw its basis from face-to-face group processes and dynamics or traditional pedagogy?
- Does the literature tell us anything more than we would make as an intelligent guess?
- Do we really know what an 'effective' online tutor would be doing?

1.1 What is an online tutor?

“Tutoring/moderating: those aspects of a teacher’s work which involve managing and ‘animating’ interactions with and among learners, especially with respect to their participation in networked learning activities.” (CSALT, 2001)

We use the term ‘tutor’ is used in its broadest sense to include, amongst others, academics, faculty, instructors, corporate trainers, amateurs, facilitators, moderators, subject specialists and learning support staff. The term online tutor includes any person undertaking a role to support and enable students to learn online effectively.

1.2 The online context

Throughout the discussion in this chapter the focus is on online tutoring for post-secondary adult learners, although in places other learning scenarios will be discussed. Some case studies focus on the roles of the tutor in supporting collaboration based on constructivist principles through text mediated asynchronous discussions (eg Hird and Slater). A few case studies describe synchronous working using videoconferencing (McKenzie-a, Glasson, Tammelin) and collaborative working through shared applications and workspaces, eg whiteboards (Roberts, Bowskill, Ehmann). The majority of the e-workshop experiences reflect a more general trend in Higher Education towards student centred learning (Daniel and Roberts, 1999). A minority of case studies (McKenzie-b,

Morrison, Labour) reported a move towards separating the provision of content from that of learning support.

From this wide range of exemplars it is apparent that there is no single 'correct' way to tutor online. The definition of the tutor's roles and activities must be understood within the specific context, ie the teaching/learning settings, the constraints of the environment, status of the learners, and of the tutor and pedagogical model. In order to provide a framework for online tutors to understand their roles in different contexts, we have included examples of online learning and teaching from a range of different scenarios.

The contributions for the content are drawn mainly from e-workshop sources. References given without dates are references to conference case study contributions. References designated by the letter 'D' and dates refer to conference discussion group contributions. Details for both of these are given in Appendix A.

2. Online tutoring: an emerging pedagogy

“We need to develop a new educational philosophy relevant for online tutors. Traditional educational philosophies have limited value since they rely on face-to-face interaction between students and tutor. Other aspects that make online learning different include the sheer numbers of questions that people have about online learning and the absence of visual cues which in turn raises the issue of cultural markers. If a new online education philosophy can be created it will help to address tutor questions about what is effective and not effective.” (Muirhead-D 2000f)

2.1 Can we learn from face-to-face pedagogy?

Many of the e-workshop participants recognise the similarities of online tutoring with face-to-face pedagogy, (eg encouraging, probing, eliciting, and enabling reflection) yet still are against the use of face-to-face pedagogy (Rosie-D 2000a).

“The lecturers found that online teaching is not the same as face-to-face classes. Flexibility is the key. They found that you cannot assume that the skills and pedagogy of face-to-face teaching will be appropriate in cyberspace. One has to be open to change and open to the lessons both in their delights and dangers that teaching online can offer. ... Teaching in cyberspace also gave them a chance to (re)view the familiar in their educational practice, thereby using their life online to inform their face-to-face teaching. Several writers have already begun to note that debates about technologies are leading to a (re)viewing of pedagogy.” (Gwynne and Chester)

2.2 What is different about online tutoring?

In the online environment the tutors are the interface between the institution and the student. Tutors need to understand both the environment in which they are working and the teaching techniques that are effective in this environment:

“Good online teaching requires from the tutor/moderator sound 'understanding' of this specific, newly created environment.” (Radic)

At present, online learning environments are predominantly text based. A tutor may be involved in activities such as support, discussion, collaboration and moderation using text based communication. These interactions may be synchronous or asynchronous, and the use of multimedia, audio, video, graphics, shared applications and shared workspaces may be necessary.

The tutoring techniques used in this environment differ considerably from those used in face-to-face situations (Mottley) and preparation of activities may rely more heavily on teamwork with instructional designers, multimedia specialists, and other technical experts all working alongside the subject expert (Neal).

The design of learning activities should consider the distinguishing features of the online learning environment:

- the absence of cultural markers (physical appearance, speech and voice, ethnicity, race) (Rosie-D 2000b; Muirhead-D 2000f),
- the different nature of interaction between student and tutor (Muirhead-D 2000f),

- the use of a different kind of text – at present, online communication is primarily text and image based, and text is presented as ‘spoken text in written form’ (Rosie-D 2000b; 2000c),
- the need to encourage reflection and deep learning – it is questioned whether the use of technology facilitates ‘surface learning’. (Clarke-D 2000b)

2.3 What are the special demands that online tutors face?

Almost anyone who has taught online would argue that the demands on online tutors are different from those on face-to-face tutors, although the general issues and situations with which they must deal are, in essence, the same. The online tutor must manage a course, guide students throughout the learning experience, motivate them, interact with them, assess them and deal with any conflicts or difficulties. The differences in tutor role result from the characteristics identified above: the absence of non-verbal clues, the use of text as the main means of communications, and the constraints imposed by technology. However, any list of roles that can be produced should only be regarded as a general framework. The role the tutor adopts should change:

- during a course (McKenzie-D 2000a),
- in response to the needs and expectations of the students (Daele-D 2000a),
- depending on the pedagogical model adopted, for example student-centred learning models work particularly well in online mode. (Daele-D 2000b; Hird-D 2000a)

As well as the demands on online tutors being different, they are also perceived to be greater, partly because of the focus on the tutor and the relative invisibility of other support services:

“The demands on online tutors are much greater than those on face-to-face tutors in terms of roles, partly because the tutor is a more intense focus for relationships, than in face-to-face environments, where course administrators, and other staff, are more accessible, and partly because of the technology issue.” (McKenzie-D 2000a)

It is clear that online tutoring is different from face-to-face teaching and the examples that follow will demonstrate that there is no single ‘correct’ way to tutor online. The definition of the tutor’s roles and activities must be understood within each specific context. The teaching/learning settings, the constraints of the environment, status of the learners and the tutor, and the pedagogical model must all be understood in order to provide an effective online learning experience for students. Above all the tutor should be flexible.

3. Perspectives on Online Tutoring

“Changing the roles of academics and teachers challenges established patterns and creates concern, horror even, in those who believe we risk quality...in learning provision.” (Salmon, 2000 p.89)

The tutor's role is examined here from three viewpoints:

- the student's perspective,
- what the tutor should do – what *activities* a tutor should perform,
- what the tutor should be – what *roles* a tutor should play.

3.1 The student's perspective

Students are quick to recognise the changed role of their tutor in online activities. They also acknowledge that online learning makes special demands on both student and tutor:

“The teacher's role was not anything like in conventional situations, where the teacher tells exactly what to learn. In a telematics-based environment the teacher is more or less just another participant, though very active one and the teacher's role as an organiser is greatly emphasised. So in this way it is much more efficient to learn to communicate, and learning is not just a one-way street.” (Tammelin)

“My own concept about learning online changed! I suggested learning would be easier than it turned out to be. You need time and you must really be involved for studying. This came clear in small group working where every member had their own tasks. So we can forget comments about how easy studying online is. As a matter of fact learning and tutoring online demands more than traditional studying at least at the beginning of it.” (Nurmela)

Challenges facing students

Muirhead outlines the problems and challenges that students may face, for example:

- students may feel isolated from other learners and tutors,
- students may face communication problems with other students or tutors (eg inadequate feedback),
- students who are constantly late in posting their weekly comments and students who fail to do their group-work can have a negative impact on the quality of interaction,
- students may struggle with writing online comments and work for assessment.

Responsibilities facing students

Students need to be encouraged to take some responsibility for their own learning. The students themselves have an important role to play to facilitate effective learning (Janes-D 2000b):

- they should be able to construct their own learning,

- they will have their own issues and agenda (yet the problems they face are often 'global'),
- they need to manage their own time,
- it is useful if they are proactive and willing to take risks,
- they need to 'trust'.

Tutors as learners

Many case studies endorsed the view that online tutors need to experience online learning as a student before they can effectively support other online learners. Priest (2000), an online learner herself, provides an interesting reflective account of an online learning experience from the student's perspective. Priest suggests that an effective online program will help the working adult online student to succeed. She identifies the key elements that should be provided for a successful program:

1. *Support services*

Information on how the university functions and how it relates to individuals, together with assistance with administration and enrolment matters.

2. *A social context for learning*

Membership of a learning community to allow the development of relationships with other students and provide support and feedback. Group-work can help with this.

3. *Effective online communication and teaching practices*

Sensitive online instruction and support, ie tutors who can ask the right questions, probe for information, and provide clear and detailed instructions. Tutors also need to be accessible by means that do not involve a computer.

4. *Clear guidance through the online curriculum*

Clear instructions and details of requirements for assessment.

5. *Tolerance for differences*

Tutors who can guide and moderate discussions.

6. *Motivation*

Tutors who can keep the online process on track and sensitively handle problems with progress and performance.

7. *Tracking attendance*

Students need to know that tutors can monitor attendance.

The student's ideal online tutor

From the student's perspective an online tutor should:

- facilitate and nurture a learning community,
- facilitate communication (including email and offline methods),
- monitor attendance and contributions,
- support process related activities, including learning skills,
- provide access to administrative and other support,
- provide sensitive online instruction (including group-work) and moderation,

- guide students through their curriculum,
- motivate,
- tolerate differences,
- help learners to achieve their objectives.

3.2 The activity-related perspective: what an online tutor should do

Tutors as experts

As in face-to-face teaching, the online tutor must undertake a range of tasks and activities that call on a variety of skills. As a prerequisite we assume that online tutors have (Kulp):

- expertise in their subject matter,
- expertise in pedagogical issues,
- technical skills.

Kulp suggests that in addition, tutors need to have skills in facilitation and written communications; time to commit to the course; previous experience as a student; and enthusiasm for the subject matter and online learning. (Kulp)

Tutor's tasks

Once the course has begun, the tutor must take on a variety of tasks, as identified by Duggleby (2000):

- welcoming learners,
- encouraging and motivation,
- monitoring progress,
- ensuring learners are working at the right pace,
- giving information, expanding, clarifying and explaining,
- giving feedback on learners' work,
- ensuring learners are meeting the required standards,
- ensuring the success of conferences,
- facilitating a learning community,
- giving technical advice and support,
- ending the course.

The need to 'end the course' might seem trivial, but it is important to have an appropriate activity or assessment to end a course or an individual learning activity. The enthusiasm of some students may lead to them placing additional demands on peers and tutors that are outside the remit of the course as this quote illustrates:

"Bringing closure to each course at the end of the semester continues to be a difficult issue. ... I have had several students request that the course site remains open as a forum for professional discourse. This does raise questions regarding faculty moderation of an ongoing discussion and maintaining student accounts may also exhaust the limits of the institution's site licence. One strategy is to include on the course web site

the information students need to join online discussions hosted by various professional associations. These can be phased in as a gradual replacement for the class online discussion.” (Hird)

‘Giving technical advice and support’ were not mentioned in any of the case studies that provided lists of tutor activities. However, almost all case studies noted the need for establishing and maintaining communications, and initiating and supporting learning activities.

Tutor guidelines

The Institute of Educational Technology at the UK Open University has produced a set of guidelines to help establish the quality of online tutoring on their courses. These guidelines are being piloted on current courses. Their recommendations focus closely on interactions with students. They consider that tutors should (Sharpe and Baume):

- be supportive in tone,
- demonstrate adequate knowledge of the course,
- provide a guiding presence in the conferences,
- answer direct requests for information,
- follow the discussions,
- provide summaries and feedback on the activities,
- weave comments at appropriate points,
- monitor the participation of all students in their allocated group.

By contrast, the Institute of Information Technology Training (IITT) has compiled a comprehensive list of tutor activities based on a *Competency Framework – Online Tutors* (IITT, 2000) (<http://www.iitt.org.uk/c-onltutor.htm>). Generally only a subset of these is required in each particular instance, according to the design and application of a particular learning programme.

Whichever list of roles and activities is referred to it is clear that tutors need to be flexible in their roles. At the start of a course the tutor may be a social host, but may then need to change this role to suit student needs. Pastoral care, hard-nosed responses, or even conflict mediation may be required. Throughout a learning experience tutors need to act as models of good online behaviour, whilst at the same time monitoring and guiding others behaviour (McKenzie-D 2000a).

3.3 The role-related perspective: what an online tutor should be

The role of manager is one of the most important for an online tutor.

“At the beginning [*the*] role is 'managerial' (organising work, agenda, deadlines, providing resources).” (Daele-D 2000a)

“As to the roles of the teacher, his or her role as a manager emerges as the key role. Among the other teacher roles are the roles of the producer, novice, expert, motivator, moderator, co-learner, team member, resource specialist and assessor. Even though it can be argued that the teacher (roles) identified above are not necessarily bound to a network-based learning environment, many of the same roles may be apparent in any modern classroom where teaching and learning are in line with the constructivist conception of learning. However, in an online classroom,

teachers need to be increasingly aware of these roles and they need to be capable of role switching in a flexible manner." (Tammelin)

Classification of roles

As a first step towards awareness of the roles of an online tutor, there are many published classifications to which we can refer. These include Berge (1995), Collins and Berge (1997), Harasim, Hiltz, Telles and Turroff (1997) and Salmon (2000) (see also Salmon's case study). The most widely used of these classifications is Berge's (1995). This has four categories:

- **Technical** – this involves making participants comfortable with the technology and ultimately to make the technology transparent.
- **Managerial** – this includes setting the agenda, objectives, procedures and rules of the educational activities.
- **Pedagogical** – this includes designing and delivering an appropriate educational experience, encouraging participation and fostering deep learning and reflection.
- **Social** – this involves creating a learning community that supports and encourages students, monitoring progress and participation.

Collins and Berge (1997) expanded the list to firefighter, facilitator, administrator, promoter, helper and participant, but the four categories above remain widely used.

The OTiS e-Workshop discussion considered twelve roles for the online tutor developed at a workshop on Competencies for Online Tutors²: technologist, manager, co-learner, designer, knowledge expert, researcher, facilitator, assessor, adviser/counsellor, tutor and mentor. This classification of tutor roles is presented in Table 3.1 and compared with other published classifications. No significance is placed on the order of the roles in this table.

The OTiS classification included two roles not included in the published sources: those of researcher and mentor.

Researcher – As online tutors we are involved in a new and evolving pedagogy developing around online learning. As reflective practitioners we can examine and develop our practice through action research enquiry (Cowan), ie developing, reviewing and refining our practice in a systematic and thoughtful way (see also Bailey, Radic, Salmon, Tammelin).

Mentoring – The role of mentor to new online tutors is an area of particular importance at a time when experience of online tutoring is still relatively rare. The use of mentors can be an important aid to newcomers to online teaching (Juwah, Macdonald, Morrison).

² The Workshop on Competencies for Online Teaching held at Bowness on Windermere, Cumbria, England, 7–9 June 2000 sponsored by IBSTPI (<http://www.ibstpi.org>), CSALT Lancaster University (<http://csalt.lancs.ac.uk/csalt>) and JISC/CALT (<http://csalt.lancs.ac.uk/jisc>). Details at <http://csalt.lancs.ac.uk/Goodyear/cot/details.htm> (accessed 14 Feb 2001).

OTiS Discussion group 2000	Berge 1995	Harasim, Hiltz, Telles and Turoff 1997	Collins and Berge 1997	Salmon 2000
Technologist	Technical		Firefighter	
Manager	Managerial	Planner	Administrator	
Co-learner	Pedagogical		Participant	Information giving and receiving
Designer		Group structurer		Development
Knowledge expert				Knowledge construction
Researcher				
Facilitator		Facilitator	Facilitator	Access and motivation
Assessor				
Adviser/counsellor	Social	Guide	Promoter	Socialisation
Tutor			Helper	
Mentor				

Table 3.1 Classifications of the Roles of an Online Tutor

Flexibility of roles

Online tutors need to demonstrate a flexible approach towards their roles (Tammelin). The word 'flexible' appears in several case studies which address tutor roles. These indicate the need for tutors to adapt to their online environment and be responsive to student needs:

“Staff were able to be flexible and pedagogically receptive; in reviewing the conferences it was established that staff had undertaken the following roles in the life cycle of a conference: host, teacher, facilitator, motivator, moderator, assessor. Staff need to be prepared for the change in styles.”
(Street)

“The most significant barrier that I encounter in my online teaching is the need to develop a new understanding of my role and responsibilities as teacher in an online environment. As with any organisational change, there is a strong inclination on the part of both teacher and students to fall back into old roles and routines when the uncertainty of the new learning environment and interactions become uncomfortable.” (Hird)

Allocation of roles

An important question is whether the full range of roles can actually be provided by a single online tutor. The full range of roles may be split between subject support and learner support (McKenzie-b, Macdonald) or allocated amongst a support team comprising, for example, 'local animator', 'tutor', 'professor' and 'co-ordinator' (Daele).

McKenzie describes how learning support tutors can be deployed alongside subject content tutors each with a different role and responsibility. Subject tutors act as an expert resource providing focused interventions relating to subject delivery. Learning support (or

process) tutors can focus on developing long term relationships with learners over a longer period and provide continuity of support and help maintain a feeling of intimacy and motivation. As McKenzie recognises, this approach helps to create a community of people skilled in facilitating online discussion, in turn helping to develop high levels of expertise in the area that is not diluted by subject focus (McKenzie-b).

The UK Open University (OU) model is one example that demonstrates the separation of the provision of content by subject experts from online tutorial support during delivery. However, the OU's online tutors are still expected to have subject expertise and provide both subject and learning support (Macdonald, Salmon, Tolley, Zimmer and Alexander).

Daele and Finkelstein describe a broader approach where the role of the online tutor is viewed in the context of the complete learning module or programme. The online tutor may be part of a course team (Finkelstein) with complex interrelationships, responsibilities and roles (Daele).

In the next sections examples of practice in online tutoring are presented to give a richer picture of the role of the tutor and some pointers toward effective practice.

4. Examples of practice: experiences

Sections 4 and 5 present some 'real world' experiences of online tutoring. In Section 4 the experiences of individual tutors are reviewed, and reflections on a small number of online courses are presented. Section 5 follows with a closer look at the strategies and techniques employed to facilitate online learning.

4.1 Experiences of tutors

Adapting existing roles

Many OTiS participants have made the change from the 'sage on the stage', or expert, of the traditional classroom to a 'guide on the side', or facilitator in the online environment. This change is not always easy, but requires a fundamental shift in approach and methods of working:

“As much as I believe in constructivist learning theory, I still found it difficult the first time a student openly challenged my thinking in the online environment. It took a tremendous amount of self-discipline for me to avoid falling back into a traditional teacher role. My every inclination was to respond with a ‘Yes, but...’ statement that implies that I still know the one right way of approaching the problem at hand. The expectation that the teacher has the right answer is not restricted to instructors; one student repeatedly apologised for taking issue with a statement I made, even though I repeatedly told him that I expected students to challenge ideas I put forth. I am finding that it takes constant vigilance to prevent both teacher and students from falling back into traditional classroom roles.”
(Hird)

“About tutors having to adjust to checking and contributing to conferences frequently rather than logging in once a week like a traditional seminar. It's the ‘taken-for-granted’ ways of operating in the traditional mode that can sometimes get in the way of effective online learning – for tutors and students. I guess to an extent we all need to become socialized to this new way of teaching and learning.” (Ballantyne-D)

Others also recognise that unfamiliarity with the technology based approach and an ‘email mentality’, which lends itself to providing answers to direct questions rather than encouraging debate and reflection through the online discussion, can act as a barrier (McKenzie-b).

Adopting new roles

As well as this change in approach to help avoid the traditional roles of the classroom teacher, the online tutor must adopt the new roles outlined in the previous section, and do this with flexibility and in responsiveness to learner needs:

“In some groups (the) role was more affective support than managerial – (they) expected (the) tutor to be involved in the work. In other groups tutor was expected to be leader.” (Daele-D 2000a)

“Facilitating an online course is not an easy task. It is a time-consuming and challenging experience that requires the use of ‘soft’ skills for promoting and building a sense of group within the Learning Sets. Ultimately, however, it is very rewarding.” (Pickering and Duggleby)

Setting guidelines

To facilitate the tutor role, clear guidelines for students are required, and some experience of the student role is recommended.

“As the instructor, I set clear expectations of the time commitment I expect from students (one to two hours per day for three weeks). And I have a clear schedule of what activities I want them working on each day (or each few days), to keep everyone together and collaborating as much as possible. Tutor time varies a lot and has a lot to do with course design. Typical is two to four hours per day.” (Kulp)

“In order to give students some understanding of what was required in the online seminars, the four unit tutors conducted the first online seminar themselves, thereby modelling the behaviours expected.” (Phillips)

Working in teams

The last quote refers to four tutors working together. Several OTiS case studies provide evidence that team working is essential for effective delivery of online learning. McKenzie's case study (an MBA programme) illustrates the effective use of two types of tutors (McKenzie-b):

- subject or content tutors,
- learning support or process tutors.

“The reasons for using two types of tutor in the online and face-to-face processes were twofold.

“Firstly the subject tutor could be positioned as an expert resource with a focused interventions dedicated to the subject content, whereas the process tutor could concentrate on developing long term relationships with course members over the three years of the MBA, and improving the course members ability to use the technology effectively. This leveraged the expensive expert resource, by allowing them to teach large numbers any time any place, whilst still allowing us to create a feeling of intimacy and motivation through the less expensive learning support tutors, who could concentrate on maintaining the motivation for virtual collaborative learning.

“Secondly, we could create a community of practice of people skilled in facilitating online discussion, developing high levels of expertise in the area, without it being diluted by subject focus ...

“The ability of a process (learning support) based tutor to sustain a long-term relationship with the students throughout the length of the MBA programme, is argued to be a critical success factor in the quality of the learning achieved.” (McKenzie-b)

Other benefits of teamworking include sharing the load and problem solving:

“...assessments were individually marked but group moderated. The team met up at least once every week to monitor progress and review tactics and plans for the upcoming sessions. The weekly meetings were also useful for discussing problems encountered, working out common questions and themes to offer across all tutorial groups, and monitoring general student activity on the module. This [*was*] particularly crucial since we were dealing with large numbers (one hundred and forty) and a small number of tutors (three).” (Finkelstein)

In discussions Janes (D 2000b) recaps the roles of the tutor:

- to facilitate versus be expert,
- to choose the type of facilitation – active, moderate, absent,
- to ‘allow’ a group to grow, form relationships, and find its own freedom,
- to be very supportive, and be seen to be present.

Clearly, to meet these roles the tutor must be familiar and comfortable with the technology for online learning.

4.2 Course Experiences

Examples of online courses have been selected to illustrate the use of asynchronous and synchronous communication techniques in the facilitation of learning. In each example the focus is on effective techniques for online tutoring and each case study demonstrates different methods and technologies that can be used to engage learners.

4.2.1 Facilitating mutually supported learning online

Zimmer and Alexander's case study examines the application of Carl Roger's communication principles to facilitate mutually supported learning online. This technique is based on the premise that some of the most effective collaborative learning takes place when learners act as tutors for one another. Applying this technique enables collaborative learning to become mutually supported learning. Students can develop the skills to act as tutors for one another by adhering to the three Rogerian communication principles that participants should:

- offer individual creative insight,
- be receptive,
- avoid imposing dogmatic, judgmental demands.

If participants can be encouraged to adopt and follow these principles it helps to generate a trusting, mutually supportive online community and helps avoid and resolve conflicts. The third Rogerian principle – ‘avoid imposing dogmatic and judgmental demands’ – means that these principles cannot be imposed by the tutor on the students or by the students on each other. For online learners to function as effective, mutually supportive tutors themselves, they need to learn how to behave – in this case by demonstrating the three Rogerian principles. Zimmer and Alexander's evaluation of two courses where these principles were introduced highlighted the need for tutors to ‘talk the talk’ and ‘walk the walk’, ie talk about and model appropriate behaviour in their own online communication and interaction.

Kennedy and Duffy describe an alternative model ‘PACE’ (**P**articipation, **A**ddition, **C**onstructive criticism and **E**ncouraging). These are presented as key principles for responding to contributions that students make to forum discussions. They are designed to help overcome feelings of vulnerability when students put their thoughts into a public forum, even though the ‘public’ is restricted to a class group. That vulnerability can stifle participation, as can insensitive responses.

Cowan in his case study discusses the use of Rogerian principles to encourage reflection and develop reflective skills in personal development planning in a different context.

4.2.2 Tutoring in real time (text based) environments

A key benefit of online learning is its anytime and anywhere attributes – learners can engage in learning at a time and place which suits them and their needs. However, benefits can come from the use of synchronous, or real time, elements in online learning (Kennedy and Duffy). These include marking key events in the course such as the start and end of activities, increasing spontaneity and motivation, and providing a sense of immediacy and community.

Bowskill considers a course that aims to support academics new to synchronous (real time) technology or new to its use in teaching. The case study draws on experiences of two projects at Sheffield University, UK: NetLinkS (<http://netways.shef.ac.uk/index.htm>) and the Computer Based collaborative Group Work Project (<http://collaborate.shef.ac.uk>).

Bowskill's case study offers useful tips and techniques for tutoring in real time text-based environments such as online chat systems, Multi-User Object Oriented Systems (MOOs) and Multi-User Virtual Environments (MUVes). These include:

1. Pre-preparing your script

“*For* those new to these technologies, there is a tendency for them to type frantically often without fully registering what is happening on the screen ...to control that tendency you need to avoid typing in a similar fashion. The aim is to try and get them to slow down and ‘listen’ to each other. By having your script prepared, you can copy and paste responses and any directions very quickly. This in turn helps you to cope more easily with that initial frenzy. Although you may need to depart from your script it often helps you across most situations early in a course or session. It also buys you reading and thinking time.”

1. Brief the participants about aims and objectives of the session

“Prior to the session, ...brief the participants about the aims and objectives of the real time session ...beyond the aims for the unit or module in which the session might reside. It is...common for people to meet in real time spaces and see what happens and, although this can work, it is better to brief everyone beforehand... helps overcome some of that initial anxiety... a guide to using and working in the given environment should also be prepared and circulated... and the environment ... should be available ... for people to experiment before any formal sessions.”

2. Use the initial sense of chaos as a learning opportunity

“... in the real time session there are a number of issues ...how to help the participants cope with the initial sense of chaos that can arise in early sessions.... it should be recognised that this is both a problem and a learning opportunity. Participants need to experience some of the chaos first-hand to have some sense of what it might be like for them as tutors in such environments. So, however uncomfortable that may be at first, it is worth letting them have a few minutes coming to terms with that awkwardness before starting to introduce some order and structure.”

3. Consider adopting some conventions for working together online

“I use two conventions. The first of these is for everyone to type a single question mark when they wish to speak and to wait until this is acknowledged by the moderator (myself to start with) before speaking/typing. The second convention is to end a line with a series of dots or full stops like this...”

“The use of the question mark provides a vehicle for turn taking and it can also be useful if there is any tendency by individual to dominate the discussion...its down side... is the potential to prevent more fluid interactions amongst participants. However, for first-timers (and others) I have found it helps them cope with the experience more easily.

“Finishing a line with a series of dots is intended to indicate that you have not finished speaking. This avoids any concern that can arise in the minds of participants if no messages are coming up on the screen. Too much delay can result in several people typing at once as a response to that uncertainty. This strategy also allows you as a tutor to say a little more and offer it in more digestible chunks (it offers the same opportunities for the learners as well). Another technique I use is to break lines of typing up... into bits... like this... just to help the text scan more easily and appear like speech rather than cold text. It is interesting to see how often participants start to adopt this and other techniques once shown. It also suggests that you are getting across to them and offering something useful.”

4.2.3 Conducting real time online classes: beyond text

Audio and shared workspaces

Roberts' case study describes the use of multimedia tools for real time online learning including audio and shared workspaces. It compares the implementation of a synchronous integrated online delivery tool (LearnLinc) in two Australian postgraduate courses. These courses had different subjects, different levels of user experience and different levels of contact.

LearnLinc provides a multimedia approach to real time, online learning and includes:

- the ability to share applications such as Powerpoint and Internet browsers,
- shared workspaces through a shared whiteboard facility, for collaborative problem solving, tutorial support and data sharing etc,
- audioconferencing.

Roberts makes a number of recommendations for successful real time online classes:

1. Be very well prepared in advance

“An experienced statistician can present the ... class off the top of their head for on-campus students ... For the synchronous online version the tutor had to find examples, type details on whiteboards, prepare suitable multiple choice question and answers, then a follow up whiteboard with complete explanation for students to print or save. In summary, it is not so easy to ‘wing it’ online.”

2. Have backups available

- for planned resources, eg a web site not being accessible,
- for application sharing, eg by having screen dumps available,
- for audio failure, eg by having key points on a summary slide.

3. Be aware of technical issues

- the delay in audio transmission due to compression and decompression,

- the pressure on bandwidth of competing applications, eg launching a new whiteboard can cause the sound to break up.

Ehmann also describes the use of real time shared workspaces and whiteboards for a tutorial support service.

Videoconferencing

Tammelin describes the use of videoconferencing to deliver real time classes supporting collaboration on an environmental management module across two institutions in Finland. Scheduling of classes and differences in the levels of students' prior experience in the subject area were two issues that had to be addressed. The videoconferencing sessions were recorded and both students and tutors evaluated their individual and collaborative contributions. Feedback from the students was extremely positive:

“Videoconferencing was the highlight of the course. There were many reasons for that. The settings were real, very close to working life lying close ahead, only this time you could afford to make mistakes. Active participation is still rather challenging, especially for a Finn... There is still some magic with the new type of high tech ... Recording made it possible to go through it again and again.”

“The videoconferences and the preparation sessions for them made the learning situations closer to the real world situations. Of course we could have had the same roles in a classroom, but during the videoconferences we had to communicate with people we did not know and who had a very different view on environmental issues.” (Tammelin)

Glasson describes the use of de Bono's 'Thinking Hats' technique as a communication method to aid effective communication in real time discussions and negotiations. The students learn the technique prior to engaging in the online class. Glasson concludes that the application of the technique makes the online discussion more efficient and effective but acknowledges that problems in scheduling. Difficulties also arose where students had not taken the module where they learned the technique before the online exercise.

“De Bono's 'Thinking Hats' method is a simple system for categorising thinking into six modes, in the context of discussion. During a discussion, any participant can switch to any of the six thinking hats. The six hats promote structure and efficiency, and help to reduce the misunderstandings that can occur during discussion.” (Glasson)

McKenzie addresses some of the staff development issues involved in exploiting videoconferencing technologies for online classes and suggests some techniques to encouraging staff to experiment. The case study (McKenzie-a) describes how practical case teaching, and online interaction and discussion are used with students, then becomes experiential learning for the tutors that can be used as case material for a tutor development workshop.

Further case studies on 'Videoconferencing for Teaching and Learning' (Alexander *et al*, 1999) can be found online at <http://www.icbl.hw.ac.uk/lti/lti-pub.htm#VCStudies>.

5. Examples of Practice: strategies and techniques

The strategies and techniques used in online tutoring vary according to the context for the learning experience, the pedagogy adopted and the needs of students. However, there are some issues and experiences that cut across most learning situations. A selection of these are considered here:

- technology issues,
- tools, techniques and structures for online learning,
- participation issues,
- the creation of autonomous learners.

5.1 Technology issues

Tutors and students need to have technology related skills in order for online learning to be successful. However, for many students it is a desire to learn about technology that motivates them to take an online course, and the course may provide them with their first experiences:

“It was important to acknowledge that for some students this would be the first time they had used a computer. By providing enough instruction to walk students through everything they needed to do an even playing field was provided for the whole group. Those who were already competent could skip these aspects of instruction.” (Gilbert-Hunt and McLaine)

Dealing with technical problems can often become part of the tutor's role, particularly at the beginning of a course. This might be appropriate for a learning support tutor, but in order to prevent a subject tutor being overloaded with technical queries, strategies for managing technical questions may be required:

“Dealing with the technical problems that some students encountered at the beginning of the subject was time consuming as it involved a great deal of problem solving to even determine the issue. The few private emails to tutors usually occurred when there was a specific technical problem with the technology... We addressed these problems in a variety of ways, eg sending out information via an email list to all students directing them to the technical support available, as well as giving them further instruction.” (Gilbert-Hunt and McLaine)

The reasons for technical problems are varied. Janes reports problems with the specification of equipment available to students, and the variable and potentially high cost of Internet access:

“Although we noted a minimum specification for the technology to be used, we were often faced with early adopters of technology as our students. Several reported some frustration with older equipment.

“A related issue was the cost and access to an Internet service provider (ISP) available to our international participants. A number lived in countries where ISPs charged high access fees and therefore limited some to offline preparation of discussion responses or to the printing of the course web site to paper. Some others felt the need to work with paper, so felt more comfortable when the web site was printed. To assist in these areas we chose to make the web site relatively graphic and animation free.

These items were used only as optional add-ons or where deemed necessary to the learning.” (Janes)

There is also a need for help desk services for students.

“As soon as any online learning gets beyond the experimental phase there needs to be a system whereby students can get technical assistance as soon as they require it. Most such students are interacting with the material, and hence most likely to require assistance outside nine to five working hours.” (Roberts)

Whilst a help desk might reduce tutor workload, or at least focus it on learning support issues, it has in some cases been found to be an advantage to have tutors directly interfacing with students on technical issues:

“Tutor control over registration of users also enabled forgotten passwords to be resolved 'on the spot'.” (Ewing)

“The tutor is able to provide some support and advice, for example, on how to send attachments or the use of WebBoard. We also point out at enrolment that students should have access to their own local technical support.” (Pickering and Duggleby)

“Early introductions online required participants to become familiar with the WebCT shell and allowed tutors to quickly access any technical problems that might be occurring among the participants. The tutors often were able to troubleshoot ‘on the fly’ but had technical expertise [*available*] when required.” (Janes)

“Both tutors and students need to be resourceful enough to find solutions and workarounds if the technology is not working smoothly.” (Pickering and Duggleby)

Morrison provides an illustration of this resourcefulness in practice:

“A self-help group was formed, in which students exchanged telephone numbers and addresses. This proved useful when students experienced technical difficulties, with, in one case, a student travelling to another's home to restore Windows.” (Morrison)

5.2 Tools, techniques and structures for online learning

With the technology operating effectively, attention can turn to the tools and techniques that are available for structuring and supporting communicating and learning online. Morrison provides a list of the some of the options available to tutors and offers comments on how they might be used:

1. Announcements board

These gave students a 'first port of call' for reference information, particularly on assignments and the end of course assessment.

2. Online handouts

... provided online... Each module could also be downloaded as a zip file, to save on telephone costs. This enabled materials to be updated more rapidly.

3. Frequently Asked Questions (FAQs)

The Academic Computing Service provided FAQs ... These reassured students (and tutors) that they were not the only person to experience a

particular problem. They also provided a quicker solution than waiting for a reply to an email.

4. Workgroups

One assignment involved the tutorial group splitting into two subgroups and creating two web sites. This allowed the students to work in a small group on a defined project and to experience the 'forming, storming' etc. processes, discussed in a previous tutorial activity, for themselves.

5. Virtual Office Hours

Students are often reticent about contacting a tutor by telephone. Email provided a more relaxed way of asking for advice and help.

6. Open discussion list

The main support method... gave students the opportunity to communicate about tutorial activities and assignments, both within the tutor group and on a national level.

7. Online café

An area for informal discussion and meeting arrangements, which attempted to replace the student canteen in a traditional course.

The collation and use of a FAQ list is widely recommended:

"By the end of the training program a list of 'Frequently Asked Questions and Answers' had been generated. This list will constantly be refined and distributed to tutors." (Ehmann)

The use of synchronous communication tools such as chat can provide opportunities for spontaneity (sometimes missing from asynchronous discussions) and improve motivation. However, they are not suitable in all situations:

"Chat was not included as a compulsory element due to its synchronous nature, as many students had chosen this course for the facility to undertake tutorial activities and communication with other students at a time which suited their work patterns. Some students made occasional use of the chat facility, more often in the national course conferences than within their own tutor group." (Morrison)

The use of journals is also recommended as a productive learning device by, amongst others, Cowan and White and Moussou:

"We learn a lot from our journals as both teachers and learners and they give the students places to tell us both their frustrations and what they enjoy/what works. It is some of the best feedback I've ever had in a group.

"We read all the journals every day and respond as quickly as possible to students' questions to reinforce the importance of asking, inquiring, reflecting, sharing in the group learning process. Silent head nodding at a screen does not provide that reinforcement, but sometimes too much 'I agree' in the learning space is clutter. In the journals it is very specific, human-to-human feedback.

"Every time at the beginning students have been reluctant to post in each other's journals. We started suggesting folks ask explicitly or tell explicitly if they welcomed or wanted to make comments in other's journal. It was a great way to also demonstrate the development of a norm for an online learning group." (White and Moussou)

5.3 Participation issues

The course examples in Section 4 illustrate active participation by students, and give advice on how tutors can help to encourage participation. It is the activities involving students that take place early in a course that have a particularly important impact on the development of a supportive and motivating learning community. These activities also set the tone for those that follow. McKenzie provides one illustration of the opening stages of a course designed to encourage participation:

“...module one introduced the technology, and allowed them to get used to navigating and communicating ... At this stage the learning support tutors concentrated on creating a welcoming environment, facilitating the group forming process, and modelling good online behaviour.”
(McKenzie-b)

Using early activities to model good online behaviour and set the standards of acceptable behaviour can help to prevent later problems that have an effect on participation. For example:

“Another early activity was to research ‘netiquette’ online and this encouraged students to apply these principles to their communication activities. Inappropriate communication did not occur within my tutor group.” (Morrison)

Bailey and Noakes both suggest setting ground rules that include issues of tutor response times, and recommend that these be agreed by negotiation:

“A set of ground rules were agreed at the start which as well as issues of confidentiality and respecting opinions, included the target response times for tutors and participants. Participants wished to have seven days to respond to activities posted up by the tutor, but requested that the tutor responded to their messages with forty-eight hours. It was also agreed that each member should let the group know if they were likely to be away for any period.” (Bailey)

Clear guidelines for students on what response times they could expect from tutors are important. If students know when tutors are likely to respond they will not become demotivated when they do not. Street's findings suggest a 'little but often' approach is most effective when combined with encouraging students to sort out their own problems:

“Tutors' discussion about personal strategies concluded that regular short dialogue with the conference was more efficient, say fifteen minutes a day, rather than two hours a week and timing the conference dialogue to give a presence. Collectively we decided that initially we had led the students to be too reliant on our input as the 'right' answer so designed the conference activities to enable the students to rely on each other. This meant that the tutor was facilitating their learning rather than conducting it, which of course lends itself to the new philosophy of our role. Once tutors relaxed with the medium they were able to let go and facilitate.”
(Street)

Students too need to be clear about the effort they are required to make to complete an online course since as Kulp recognises:

“The biggest barrier is students' non-commitment of time and energy for the duration of the class. The approach I've evolved is to be very clear about the requirements in a pre-class welcome message, and to 'nag' non-participants, some of whom decide to drop the course and retake it when they can give it the attention it requires.” (Kulp)

'Nagging' can also take other forms such as exclusion from activities:

"...some students were reluctant to do the necessary preparation. We overcame this by excluding them from the teleconference learning experience, an experience that all students regarded as attractive."
(Glasson)

Finally, whilst nagging and penalising students might be seen as negative ways in which to encourage participation, there are more positive strategies which work such as:

- Awarding marks for participation in online activities and discussions, a technique described in many case studies, for example:

"...if I was to chose the most important [*strategies to encourage participation*] these would be giving a small percentage of the subject mark to active participation in the subject and ensuring that the subject material had in-built tasks that required interaction with others to complete it." (Gilbert-Hunt and McLaine)

- Limiting participation in the conferences by the tutors:

"In addition by not actively contributing to the discussion myself I believe that the student group took more ownership of the discussion and did not wait for the tutor to rescue them or come up with the right answer."
(Gilbert-Hunt and McLaine)

"... any attempts to email the facilitator off list were responded to with a reply to the entire list. Learners quickly learnt to share all problems and solutions!" (Clarke)

- Providing reinforcing, positive responses to encouraging participation:

"The practice of collaborative learning was quickly established... Students... indicated... participation was encouraged by the positive responses from tutors to individuals as well as to small groups." (Clarke)

5.4 Towards autonomous learners

After initial activities to get students involved and beginning to take responsibility for their learning, the opportunities for collaborative learning can be exploited. OTiS participants report differing experiences during the later stages of a course. One example, reported by McKenzie, and using different tutors for content and learning support, illustrates the type of activities that might be undertaken as the course progresses:

"[*In Module 2- collaborative activity*] the emphasis of the learning support tutors was on helping the group work through the storming process, by encouraging the course members to surface their differences online, and express their feelings about the experience of working collaboratively.

"The third module concentrated on setting the group charter, and establishing a working protocol and discipline for later modules where group assessment would be included. This helped course members experience the process of developing group consensus without the normal face-to-face signals. The incentive for group discipline was that the subject expert would only participate in the online discussion during certain periods. To get the most from his/her online presence, group preparation was required. The process tutor acted to maintain momentum, and ensure group cohesion. Once the groups had a reasonable expectation of performing as virtual teams, later modules assessed the quality of

collaborative online working through a subject tutor allocation of marks for quality, quantity and timeliness of the contribution.” (McKenzie-b)

The students' reactions, and the tutor's responses, to these activities are interesting:

“Our experience was rich and varied. There was an initial burst of enthusiasm for the technology at the outset, during module one. In module two, we encountered some serious aversions and resistance, as the frustrations of asynchronous online collaboration became apparent. Process [*learning support*] tutors needed to invest a lot of time, encouraging people, resolving technical ‘hiccups’ that became scapegoats for avoiding online conversations. Module three demonstrated that some groups had found ways around the ‘pain’ of online discussion, by setting up face-to-face meetings of local sub sets of the group, or audio conferences, in which the tutors were not included. The tutors had to do a lot of one-to-one lobbying, to ensure that groups did not exclude the geographical outliers, and that they gained the full value from sharing their learning online, with others. Face-to-face workshops were leveraged to build relationships, develop group learning contracts, and discuss the practical aspects of learning at a distance with online support.” (McKenzie-b)

In most courses tutors have initial responsibility for group formation. Labour indicates perhaps why this is necessary:

“The first barrier was to properly ‘matchmake’ email partners. At first we let learners go onto the Internet and find partners but this did not work as our adults felt that their email ‘pen-pals’ were not ‘serious’ enough. This meant that tutors had to intervene directly by asking future participants to write to them in sending a short biographic profile via email. Based on this profile, tutors matchmake learners.” (Labour)

Throughout the course it is essential to guide students through their learning activities, and to help them understand why what they are doing is important:

“Throughout the subject it was important to make the learning strategies explicit for the student, this was achieved by providing reflective activities, which contributed to set assignments.” (Gilbert-Hunt and McLaine)

6. Encouraging effective practice: getting started

“Computer-mediated education creates unique risks for both tutors and students. Tutors can face heavy workloads from large online classes that require large amounts of personal emails, phone calls, and discussion forum comments. The quality of online interactivity with students can suffer, if teachers become overwhelmed by constantly having to deal with large classes. Yet, students can become discouraged by the appearance of more intelligent discussion comments that are made by their fellow classmates. It can have a negative impact on the quality and quantity of their discussion postings. As students devalue their personal knowledge and life experiences, their online contributions can become more driven by an obligation to get through the experience.” ((Rowntree, 1995,) quoted in Muirhead)

In the sections entitled ‘Encouraging effective practice’, advice from OTiS participants has been collated to provide guidelines for those involved in online learning. The advice is wide-ranging and covers:

- managing expectations,
- building a successful learning community,
- encouraging participation,
- administration,
- encouraging and maintaining discussion,
- encouraging deep learning and reflection,
- monitoring progress,
- providing effective feedback,
- assessment.

In some places the advice is accompanied by examples from the case studies that illustrate successful practice. It is hoped that the lessons that can be learned from the experiences of others will help to mitigate the risks outlined by Rowntree and make online learning a successful and rewarding experience for both students and tutors.

6.1 Managing expectations

Students' expectations

Students come to an online course with their own expectations and objectives.

McKenzie (D 2000c), based on research on UK Open University students, suggests that many come to online learning with an 'email mentality', expecting one to one communications. This can create an enormous overload on the tutor and also student dissatisfaction when response time is slow. McKenzie (D 2000d) recommends that we clearly define the learning objectives for everyone so that we are all aiming for a common target.

Students may also have unrealistically high expectations and need to be guided to moderate their plans to set achievable tasks and targets:

“The project is quite short (nominally thirty to forty-five hours, though in reality much more) and the students planned to interview ten or more

teachers. I had to reduce their expectations to make a quantitative survey and clarify the objectives of the work..." (Daele)

"Naive expectations by students that this is the 'easy' way. Our experience is that for both students and teachers, distance learning is the harder way. It has been essential to encourage students to be realistic about the time this course of study will take and about the amount of time they have." (Kennedy and Duffy)

McKenzie (D 2000c) provides a useful list of suggestions to help manage student expectations:

- State up front the tutor online commitment in terms of times per week that they will log on to asynchronous mode.
- Discuss the role of the tutor compared to the value of others as a resource. Perhaps discourage one-to-one support as a first line of defence. When a student asks the tutor a question the first response could be "who have you talked to about this already, and what suggestions have they made?".
- Have a planned mix of synchronous and asynchronous communications so that there will be specific 'tutorial' or 'problem solving' sessions where the tutor will be available.
- Use email as a last resort for private communications.

McKenzie also describes the use of a "roadshow to manage the expectations of potential candidates prior to signing up for the course, which reduces the potential blockage that 'culture shock' can create in the learning process." (McKenzie-b)

Tutors' expectations

Whatever techniques and skills tutors are using online, they will be different from those involved in classroom teaching, and the timing and implementation need to be carefully thought through:

"... sometimes we have to manage the trade off between packing in the learning in order to complete the course ... which is somewhat in conflict with the time demands needed to explore, reflect and collaborate." (McKenzie-D 2000b)

"...in addition to rethinking content and structure when moving online we need to rethink the time the learning activities will take. 'A commonly used rule of thumb is that each day in the classroom translates into a week online. And 'courses that last more than three or four weeks lose momentum'." ((Kulp, 1999) quoted in Kulp)

6.2 Building a learning community

An effective learning community is a prerequisite to successful online learning, especially if collaborative work is involved. This section offers an overview of the issues that are addressed by Zimmer, Harris and Muirhead (2000) in 'Theme 3: Building an Online Community'.

Palloff and Pratt (2000) identify the key areas that will lead to the development of an effective learning community:

- ensuring access to and familiarity with the technology in use,

- establishing guidelines and procedures which are relatively loose and free-flowing,
- striving to achieve maximum participation and 'buy-in' from the participants
- promoting collaborative learning,
- enabling participants to reflect on their learning process.

Finkelstein notes that students feel more comfortable working in groups where they know other individuals, and although the authors suggest face-to-face contact to facilitate this, it is not always possible. White and Moussou offer some suggestions for online relationship building:

“The combination of attention to relationships through welcoming interactions, reciprocity, the persistent use of good questions and the safety of a playful, warm environment, allows students to open up and experience the course both intellectually and emotionally.” (White and Moussou)

This approach echoes that of Zimmer and Alexander's 'Rogerian Principles of Communication' and Kennedy and Duffy's PACE model (Participation, Addition, Constructive Criticism and Encouraging) (see Section 4.2.1).

Strategies for building communities

Strategies that can be recommended for early community building include the use of:

- **personal profiles and introductions**

“I ask each student to fill out a personal Profile, including a photo of themselves (or their family, or favourite place or activity) so they will seem more human to one another.” (Kulp)

“To encourage early participation, I have found that asking the students to provide a short introduction and a description of their job role usually reveals areas they have in common and breaks the ice.” (Creanor)
- **group activities**

“I start each class with a 'two truths and one lie' exercise to establish a culture of interaction and collaboration, (“tell two 'truths' and one 'lie' about yourself and ask classmates to vote on which is the lie). This is a very successful exercise [*on this course*] students ... get to know one another, laying the groundwork for future collaboration.” ((Kulp, 1999) quoted in Kulp)
- **private student-only online space**

“A private conference, open only to students, also helps them to establish a sense of community, albeit virtual.” (Creanor)
- **email**

“Broadcast email as well as individual email, carefully crafted to be welcoming, gave newcomers both a sense of personal connection and an understanding of the larger whole.” (Janes)

6.3 Encouraging online discussion

In her keynote presentation to the OTiS workshop, Mason (2000) suggests that online discussion will be facilitated where:

- being online is an assessed part of the course (see Macdonald for an in depth analysis),
- when it is easy for students to work out where to put their messages,
- when the purpose of being online is clear.

She suggests some techniques that tutors can use to encourage discussion, for example:

- emailing individual students to invite them to make an input to the conference,
- asking students to take turns in moderating,
- using messages that prompt discussions of one or two issues at a time, and providing a personal response as a 'pump primer' to help students link into the discussion.

Once a discussion is started the activities of students will have an impact on its success. It is extremely rare to get 100% of students playing an active part in an online activity. Guidance notes to UK Open University online tutors (OU, 2001) recognise that around a third of students are likely to be active online, one third will be watchers and the other third will not take part. Amongst the OTiS participants, Tolley (D 2000b) observed that in her e-tutorials there is a core group consisting of twenty-five per cent of the total students. She suggests that this core group should recognise themselves as that and get on with the discussions. Late posters will have to catch up, but their distance from the discussions may mean that they can contribute useful new insights.

Late postings can have other effects. Research findings from Muirhead (D 2000d) based on a survey of 93 graduate students (masters and doctorates) found that 47.3% of students felt that classmates who were late in posting their weekly comments had a negative impact on their learning experiences. Students also felt that discussions were limited by having fewer comments and spoke of missing the reflections of their classmates.

However Blom (D 2000) suggests that tutors should respect non-contributors:

“Tutors should be attentive to student's educational experience...some learners might prefer not to get involved in discussions. They may have good reasons for this, which should be respected.”

Maintaining the momentum

So, given that a limited number of students are likely to be active, how do you keep things going? The following suggestions are taken from Clarke (D 2000c), Tolley (D 2000c), and the case studies by Street, Creanor and Mohamad:

1. Setting the scene

- Include an initial task set by the tutor to get a conference started, eg mimic conversational introductions or some other ice-breaking activity.
- Illustrate contributions with examples from case studies or discussions.

2. Real tasks and real rewards

- Use collaborative learning to 'foster a sense of community' and ensure students 'find themselves actively engaging with the concepts they are learning'.

- Make sure that students are working towards an end result (eg group written essay, questionnaire).
- Make students respond to one another's papers/work/ideas within a limited timeframe.
- Use formative assessment strategies to motivate rather than solely checking learning (eg include a portion of assessment based on contributions).
- Reward students who participate, eg by providing access to further tasks to extend learning, or formatting contributions to enable identification of good work, especially in collaborative activities.

3. Managing communication

- Make sure that staff access the conference frequently to motivate students to access and review material regularly.
- Manage the way threads emerge and are responded to, and encourage real discussion.
- Teach students how to thread and summarise and the importance of structure in a conference to prevent conferences going 'wild'!
- Learn the new skill of creating a 'weave' – an open ended pulling of things together and then encouraging further discussion in another strand.
- At a later stage provide a short summary of the issues raised so far, and introduce a new or related topic that will encourage some debate.
- Explore how to build and maintain interactivity in the online tutorial.
- Be aware of the difference between moderating and facilitating the conferences.
- Include current news items or new web sites and resources.
- Set realistic timeframes.

“The role that the teacher takes in facilitating discussion is an important factor in the success or failure of the discussion activity. If the teacher immediately answers all questions, then students will not feel a need to contribute. This leads to a lower-value, passive educational experience for the student, and can lead to a heavy workload for the teacher.” (Phillips)

The tutor can use the management tools offered by online teaching software to try to encourage the lurkers to participate, but note the cautionary message from Creanor:

“The history list facility in First Class is a very useful tool as it allows tutors to see if the students have at least been reading messages, even if they have not contributed. If a student has been unexpectedly inactive online for a few days, a direct email message usually elicits a response, and any concerns can be sent to the tutor in a private message. It also works in the other direction as the history list allows the students to check how often the tutor is logging on to read their messages, and we have had a case where a student queried the tutor's apparent lack of involvement.” (Creanor)

6.4 Effective administration

Administering an online programme often requires a re-examination of traditional university procedures and policies. Online tutors involved in the design and administration of their courses need to be prepared for some difficulties in these areas, unless their

organisation is ahead of the game and has thought through all the implications of online learning for traditional support services.

Janes illustrates typical difficulties documented by a number of authors, eg Higgison, Radic, and Tammelin:

“Initially, [we] tried to use facilities and services of the University (such as registration, the bookstore) to administer the program. It was found that institutional policies were designed to work for the traditional on-campus student. [We] took over the administration of several of these services and tutors were sometimes asked to advocate for the participant with the University or other agencies.” (Janes-D 2000a)

They also found that extra duties placed significant workloads onto tutors:

“Early in the program, administration of the tutor registration was handled at the same time policy was being developed to deal with registration issues. When the task become very large, it was passed on to additional staff. With the two weeks at the beginning of the term to allow for dropping or adding the course (a standard procedure at a Canadian university), tutors were often left to contact several people in the unit to try and get a definitive, final list of who was in the course. This could be frustrating”.

A range of other challenges recorded by participants include:

- Additional administrative complexities arising from collaboration across institutions (Creanor, Tammelin).
- The time and effort involved in timetabling and scheduling synchronous events (Tammelin, McKenzie-a).
- Problems caused by students not taking necessary prerequisite courses (Glasson).
- Dealing with problems arising from the administrative and technical mismatch of existing systems and the demands of a large scale pilot course (Morrison).
- Implementing strategies to cope with a fundamental mismatch between expectations of student facilities (access to the Internet) and skills (command of English) and the reality (Higgison).

7. Encouraging effective practice: promoting learning

Once an online learning community is established, and effective communication is taking place, the challenge is to use the tools and the opportunities for collaboration to facilitate effective learning. This section outlines practical steps that can be taken by online tutors to improve the learning process in their courses.

7.1 Maintaining online discussion and promoting interaction

Once interaction is established within a learning community, it must be maintained. Interaction can help to nurture the community as Gwynne (D, 2000), commenting on Gilbert-Hunt and McLaine, recognised:

“What I found really worth while was allowing students to own their knowledge via threaded discussions and building a learning community through group interaction...”

Anderson and Simpson offer a useful list of ideas to promote interaction as an important and necessary activity:

- A weekly “Update” (newsletter) from the co-ordinators, that tries to look in a light-hearted way at the past week, could build a feeling of community and participation.
- Having group guidelines and reminding students about them.
- Using staff who want to engage with students.
- Allocating students to small groups to develop a sense of group loyalty and belonging over a semester.
- Having activities that require group interaction and collaboration built into course materials.

Handing control to the students

The idea of the tutor handing over control of the discussion to students has been raised earlier. One technique for achieving this is to rotate the role of moderator around a group of students, as outlined by Janes:

“I then offer the idea of rotating the moderator role around the group so as many people as would like to have a similar opportunity. This is not only a way of relinquishing ‘control’ of the technology it also allows you as the tutor to step to the side and overview the interactions. The use of these conventions becomes a shared tool or method for the group to use and although it can make the session slightly mechanical for more formal sessions it does help add structure and balance opportunities for participation where appropriate”.

Handing over the moderating role is easier if tutors have set a good example in their own behaviour as moderator. White and Moussou suggest that tutors should also make mistakes and be transparent in their own activities. Participants do not like to look silly online, or offline. We need to provide a safe environment where role modelling, experimentation and mistake making can take place without risk or loss of face.

Promoting interactivity

Once students have the confidence to participate in discussions, the focus is on interactivity. A survey by Muirhead (1999) (reproduced in his case study) has led to a large number of suggestions for improving interactivity. These have been combined with suggestions from Anderson and Simpson to provide a number of recommendations:

1. Tutor support

- Students want consistent and timely communication (feedback) from their tutors.
- Students want personalised contact with their tutors to humanise their classes.
- Students should be accountable for keeping up with weekly discussions.
- Tutors should be more active in their [online] classes.
- Staff should monitor groups to ensure that effective interaction is occurring. This does not mean reading every message. It means sampling.

2. Structure and guidance

- Integrate more group projects and chat sessions into online classes.
- Small groups within larger classes are essential.
- Ensure groups report back to the larger class.
- Provide clear guidelines for the ways in which online groups function best.
- Be realistic about timeframes for online discussions.
- Provide staff development and some support for first-time tutors.

3. Encouraging student ownership of learning

- Tutors should create intellectually challenging and open-ended discussion questions.
- Tutors should promote learner centred activities. Interaction must be required.
- Assign roles **for** students in group work. But let the group assign roles **to** its members.
- Students express a need to have a greater influence on course direction.
- Students prefer tutors who are teachable and willing to learn from their students.

7.2 Encouraging deep learning and reflection

Encouraging deep learning is a special challenge in the online environment where technology can be a distraction, and is considered by some to encourage surface learning. Muirhead, (D 2000a) identifies the 'ingredients' of classes that will encourage deep learning:

- tutors who give excellent feedback to their students by posing deep questions,
- tutors who use relevant questions that require a combination of knowledge of the subject matter and critical thinking skills,
- students who are highly motivated and who share thoughtful remarks that encourage others to reflect on issues from a different perspective,
- students who use several references at times to provide context and support for comments.

Techniques for encouraging deep learning

Two techniques for encouraging deep learning are:

- use students as tutors (dialectical tutoring), (Rosie-D 2000d, Zimmer and Alexander):
- get students to synthesise, set questions, work with others – work from the development of thesis and alternatives (Rosie-D 2000d)

Using students as tutors and helping them to present their own questions requires the tutor to take a 'back seat' (Clarke). Tolley (D 2000a) offers suggestions about how to do this when students ask for information:

- the tutors should suggest a source of reference,
- the tutor should request a response from another better-informed student.

Tutor skills

Two important sets of skills needed by the tutor to facilitate deep learning are:

1. **Questioning skills.** To help develop these Muirhead (D 2000c) suggests that:
 - tutors should be able to offer advice to help students write intellectually stimulating comments,
 - tutors should read widely to have a wide range of information from which to spark discussion,
 - fear should be removed from the educational process – for example by offering constructive suggestions about student's online comments to help replace fear with a 'caring attitude that makes learning a joy',
 - tutors should recognise that there are some adult learners who are not willing to change.
2. **Summarising skills.** Muirhead (D 2000f) again offers help here:
 - tutors should strive to develop relevant questions to promote critical thinking but it is sometimes difficult to get beyond the surface comments,
 - tutors can hinder dialogue by sharing too much online: students need to sense that their knowledge and personal experience is valued,
 - tutors need to monitor their online discussion to encourage active participation by all members.

Balancing participation

There is also a need to strike a balance between overactive and underactive participation (Janes-D 2000a) by students and tutors. A wise tutor will not allow a student to dominate online discussions. Students can get upset when the tutor is not proactive enough (Muirhead-D 2000b). If the correct balance can be struck, students will start to take control of their own learning:

“The facilitator promoted interaction by positively encouraging responses and by trying to avoid judgemental comments (eg ‘That’s an interesting comment xxx, How do the rest of you feel?’ vs. ‘I agree and ...’). The facilitator also encouraged interaction by taking more and more of a back seat as the course progressed and consequently, participants taking control themselves. The participants also started to notably move towards

encouraging their peers by adding in questions at the end of their messages so as to invite a response and also showing empathy for both negative and positive emotions described by peers.” (Noakes)

Student ownership of the learning tasks

Noakes (D 2000d) suggests that it is important to involve learners in process decisions as well as decisions about personal learning objectives. Janes describes how student ownership of the learning tasks can be promoted by giving them control in selecting course issues, and allocating roles and responsibilities:

“While the two tutors had a reasonable idea of what issues were being debated in the literature, they decided to design the course to allow for full student selection of the core issues. At the end of the brainstorm session, which had a distinct beginning and end, the tutors summarized the discussions into a series of key issues.

“... the students were divided randomly first into two groups (A and B) and then into six small subgroups ... were assigned the task of deciding on what issue, ... they wanted to research and present.” (Janes)

7.3 Ensuring progress

Management and facilitation of online learning goes beyond setting appropriate activities and developing the learning community. Feedback to students on their progress is essential for motivation, and the monitoring of non-participants is a time consuming activity for tutors.

The problems created by students who do not participate online have already been alluded to and are neatly summarised by Street:

“Non-participation can adversely affect the ability of the environment to enable learning...” (Street)

Inappropriate behaviour and conflict

Inappropriate participation can also be a problem, leaving tutors to manage conflict and other inappropriate behaviour:

“A recent course ... was disrupted by one learner who bullied, insulted and intimidated others in the class. [*The facilitator's*] approach was to let the students deal with it until it really got too negative. Thereafter he put the 'offender' in an online collaborative group with the learner who he had most insulted and the 3rd member of the group was a supportive, phlegmatic person. The resulting group project was most successful and a very constructive solution.” (Clarke)

McKenzie reflects on why conflict might occur which:

“Research findings suggest that some learning styles enjoy this form of interaction more than others, although the extent of the differences is not highly significant, and the work of the learning support tutor can help minimise the effect of this. We have many examples of how process based, learning support tutors resolved particularly contentious issues, which could have derailed the learning process for many. In practical terms the subject tutor would have been unlikely to pick up on these

difficulties, and even if they had, it was unlikely that they would have had the time to resolve them satisfactorily.” (McKenzie-b)

Morrison provides an example of how breaches of guidelines for participation can be handled, in this case a breach of ‘netiquette’ guidelines introduced at the beginning of a course:

“On a national level, isolated occurrences were dealt with by removing the student's contributing rights to the conferences for a set period, with the threat of permanent removal if the offence were repeated.” (Morrison)

External influences

If the previous section of this report was about motivating students already engaging in the learning community to participate fully, this section is geared more to encouraging progression through an online course. There can be many reasons for a student's lack of progress:

“Time management, conflicting priorities and other commitments (including work, family and ill health) were a problem for many students.” (Higgison)

“Our evaluation indicates that HND students on the whole need much more encouragement and help to start with in order to get them participating in an academic debate over the conference, whereas they are very good at using the space for chatting. Degree students are the opposite.” (Street)

Motivating students

Higgison emphasises again that flexibility is needed from the tutor to maintain students' motivation. Other case studies make additional practical suggestions:

- Make sure that students are aware of the availability of others in their group – ensure that all students in a group know the holidays and preferred days of the week for synchronous meetings (Daele).
- Use strategies for rewarding participation and motivating students, for example award a percentage of marks for contribution on a weekly basis, and a percentage of marks for summary assessment (Street).
- Keep track of communications – who you have contacted, when and for what purpose (Higgison).
- Try to make each student feel that you know who they are, where they are in the course, what their current problems and concerns are and where they are doing well (Higgison).
- Use personal email or telephone calls to track down any student who ‘goes missing’ (Morrison, White and Moussou).
- Although time consuming, tasks relating to managing communication and administration, ie receiving, storing, marking and feeding back on assignments are crucial (Higgison).

Tracking students

Tutors face problems in maintaining contact with students and tracking their progress:

“Knowing what the students are doing at any moment, eg between the meetings. If the students do not send any message for about one week, it is difficult to know if they are involved.” (Daele).

Gilbert-Hunt and McLaine used a combination of methods to keep track of their students:

“Students were required to email the tutor and post a message on the discussion upon receipt of the study materials. That meant we could check up on anyone who did not respond in the first week rather than wait for a problem to arise later. In addition, there were a number of small assignments along the way that helped keep a check on the progress of the group as well as reviewing who was participating in the online discussion.”

McKenzie employed learning contracts to aid participation and progress:

“Subsequent improvements to the process have been to introduce the notion of learning contracts in module one, and make these an explicit requirement of the course through to module three. Process tutors take responsibility for supporting the negotiation and maintenance of these agreements, giving them a specific purpose right at the outset. This positions their role effectively, and gives them legitimacy.” (McKenzie-b)

Whatever strategies are used to monitor and encourage progress, Ewing suggests that students are generally in approval of, and rely on, tutors keeping them up to date and 'on track' for progressing through the course.

8. Encouraging effective practice: feedback and assessment

Feedback and assessment have many purposes in the online environment – including motivating students to participate in discussions and grading their contributions. Given the reliance on text as the basis for feedback, there are a number of important issues that tutors face to ensure that they provide an appropriate level of comment on student work and that it is received in the way that was intended. This section provides some practical advice on providing effective feedback, and on assessment strategies suitable for the online environment.

8.1 Feedback

Feedback is essential to motivate and encourage online students:

“My survey showed that students want feedback but not excessive amounts of feedback. Only twenty-three per cent of my respondents classified their interactivity with their tutor as being excellent or very good. In my research sample the problem was a lack of, or inconsistent, tutor feedback.” (Muirhead)

Muirhead identifies the common difficulties in providing feedback in online courses:

- students expect a high level of individual feedback,
- tutors find that teaching becomes time consuming when they try to meet students' expectations of speedy responses to conference contributions and assignments,
- with larger groups the problem increases.

Getting the balance right can be difficult, as Creanor comments:

“Getting the balance right is difficult, as frequent communication can lead to overload. In my experience too much and over frequent feedback can have an alienating effect on students.” (Creanor-D on Muirhead)

Kulp suggests using a scaffolding process to help the students become more self-reliant. This provides needed supports early on and then gradually removes them, as they are no longer needed. McKenzie (D 2000b) suggests a possible approach:

- Use stimulating exercises at the start of a course to encourage appropriate practice, get people involved and assess progress, and use these to contribute to later summative assessments. During this early period tutor responses should be quick.
- Middle period – have longer response times to give more space for reflection and collaboration.
- Near assessment deadlines – short response times might be necessary.

Noakes (D 2000b) suggests a similar approach. He suggests that e-moderators should be explicit and upfront about when and how often they will respond to students, and preferably, they should negotiate these things. Students' expectations will change over time as they move towards being self-directed and autonomous learners. Noakes (D 2000a) also suggests a second strategy for short courses (from one month to one semester in length) – using a working week from that runs from Wednesday to Tuesday. This encourages learners to make their initial postings by Saturday and allows time for responses by Tuesday. Having the weekend in the middle seems to give people more time to respond.

Bowskill (D 2000b) cites another example where a global seminar was conducted in a specified timeframe, then after a month the course was revisited as a separate event to allow longer discussion. A similar strategy was adopted for the OTiS e-Workshop.

8.2 Strategies for assessment

“Different kinds of assignments appeal to students with different learning styles...and they keep things interesting...So mix things up. Read, discuss, brainstorm, debate, role-play, research, reflect... Consider offering alternate learning paths to meet different learning styles and needs: collaborating, questioning, reflecting, reading, writing, telling.”
(Kulp, 1999) quoted in Kulp)

The quotation above could apply to classroom learning as well as online learning. However, there are some special strategies for assessment and uses to which assessment can be put in the online environment that deserve consideration.

First, there is a strong link between assessment, motivation and participation in online discussions.

“...assessment can be designed to provide the motivating force to participate online in a productive way, by maintaining momentum, influencing the quality of contributions and dictating the direction and timing of participation.” (Macdonald)

McKenzie gives an interesting example of the link between assessment and participation:

“There was major resistance to assessing online team working capability, but in fact, the concept provided a much-needed incentive to participation. This combined with the dynamic and interactive subject tutor input, and the improving relationships with the learning support tutor, stimulated greater usage of the online environment, and resulted in better learning outcomes.” (McKenzie-b)

Assessment can also be used to recognise the value of the students' own experiences and facilitate their progress through an online course. Gilbert-Hunt and McLaine required evidence of student participation within three weeks of the start of the course:

“The first assignment required students to share their thoughts via the threaded discussion about what they had learnt about their own learning style based on an exploration of various web sites. Thus, they were forced to use the technology early on and overcome initial fears and anxieties. Moreover, they were sharing ideas from a position of ‘expert’ as they were talking about their own learning style.” (Gilbert-Hunt and McLaine)

The strategies described by Higgison and the lessons learned from this are a useful model, reinforcing the need for tutors to be flexible:

“Regular, positive and encouraging communication with all the students individually by email on a weekly basis. This included general comments on their progress, demonstrating an awareness of their problems, what they had achieved, and attempting to provide a sense of continuity and reduce their isolation. The tutor marked assignments provided regular milestones for contact and communication and provided feedback and a concrete measure of their progress...”

“We had originally decided to strictly enforce the deadlines for submission of tutor marked assignments. In practice this did not work and it was left to the tutor's discretion. This approach provided the flexibility

to respond to the needs and circumstances of individual students but created extra work..." (Higgison)

Finally, the approach adopted in Street can be recommended as providing motivation for participation, as well as opportunities for summative assessment:

"Assessment strategies have changed to accommodate formative assessment, which motivates the activities and summative assessment to check the learning, eg: percentage of marks for contribution on a weekly basis, percentage of marks for summary assessment (either report or written examination)." (Street)

A more detailed discussion of the challenges and opportunities e-learning offers for assessment is provided by McAlpine and Higgison in Chapter 4: New Assessment Methods.

9. Preparing to go online

A set of guidelines for those involved in online tutoring would not be complete without some advice on how to approach and manage the role of tutor. The wealth of experience amongst OTiS participants is a particularly valuable resource in this area. First we address some of the problems faced during tutoring, and then attempt to draw together ideas for solutions.

9.1 Guidelines for online tutoring

One of the most noted aspects of online tutoring compared with classroom tutoring is the overwhelming, and sometimes difficult to quantify, volume of work that may be involved:

“...staff became overwhelmed at first with the potential burden of contributions and assessment. It has been necessary to review the staff role to make conferencing achievable.” (Street)

“Being overburdened with information and messages. For example, quiet weeks were followed by weeks where I received fifteen or twenty messages by email or on the newsgroup in addition to the synchronous meetings. I had to answer these and be sure that everyone received all the information.”(Daele)

“... the students expectations of a speedy response to queries and the consequent increase in the time needed to tutor online courses. Management often see online tuition as a way of cutting costs and do not recognise the hidden subsidy of the tutors' own time being used.” (Morrison-D commenting on Creanor)

“There is a qualitative difference between face-to-face and e-tutoring commitments however – the latter is less under the tutor or module leader's control. I guess tutors can log in for a set number of hours a week but e-tutoring does not seem to be suited to this kind of regime. Face-to-face tutoring can be allocated in blocks that suit the teaching load formulae. How do we resolve the less formal mode of operation with the administrative needs to measure staff input?” (Webster-D commenting on Creanor)

The last two quotations above indicate the tension that can arise between tutors and management during the planning and implementation of online tutoring.

Managing the workload

A number of strategies are suggested to help prevent tutor ‘burn-out’ and reduce workloads (eg Mason 2000, Street, Morrison). Some of these suggestions are particularly applicable to courses that involve more than one tutor delivering the same course.

- Do not mimic a tutorial programme – instead access conferences more regularly for less time.
- Restrict the amount of time online by confining it to certain days or to certain times.
- Manage students’ expectations right from the start and let students know what to expect from the tutor, eg how much time the tutor will spend per week on tutoring, or what days or times the tutor will log on.
- Use centrally provided template email messages for starting online activities.

- Provide marking guides for assignments.
- Do not respond to every student query or comment and do not always be first in responding.
- Tutors' input at the beginning of an online course is very important and an immediate response by the tutor to the first message of most if not all students helps to prevent 'communication anxiety'.
- Generally, the more input the tutor makes at the beginning of the course, the less is needed thereafter.

Team tutoring

The use of a team of tutors to deliver a course can also offer significant benefits in terms of sharing the workload, and providing mentoring and support for tutors. Several case studies give suggestions for teamworking strategies (eg Finkelstein, McKenzie-b, Mikulecka and Poulova, White and Moussou):

- Perform group moderation of individually marked assessments.
- Hold regular team meetings to monitor progress, discuss problems, work out common questions, monitor student activity and review tactics.
- Allocate responsibility for different sections of the course to different tutors.
- Use subject and process tutors. Subject tutors represent an 'expert' resource, process tutors can concentrate on developing relationships with students.
- Use two teachers to alternate online availability (especially after the initial stages where significant amounts of online time may be necessary) and to demonstrate varied styles.

Group Size

The size of a group that an individual tutor must work with clearly has an impact on workload. The group sizes described in the OTiS case studies varied considerably and ranged from three to five in Kulp who suggests that small teams ensure the active participation of each member, to twenty-five in McKenzie-b, where a learning support tutor was allocated to each group and in addition there is one subject tutor per module intake.

Although 'gut feeling' suggests that small group sizes might be preferable, this may not always be the case, as demonstrated in Sharpe and Baume:

“Tutors were allocated between eight and fourteen participants and so some online tutor groups were small to run activities in. Two tutors decided to collaborate and merged their groups giving a group of eighteen participants and two tutors. This group was more lively and successful than others...” (Sharpe and Baume)

Whatever the group size, the main barrier to tutor (and student) activity is always time:

“Do not under estimate the time it will take for a tutor or the participants. Online activities do take longer.” (Bailey)

Peer support

Some case studies document the use of peer support groups for tutors. For example McKenzie (McKenzie-b) found that creating a forum for subject and process based tutor

interaction helped the tutors where the internal training programmes were not well attended. This approach also proved successful in Morrison. However, it is not successful in all cases, for example:

“At the beginning of the programme, a private online discussion area was made available for tutors to discuss and address common issues, problems and successes. It was not a tool that was well used. Tutors preferred to use email, the telephone, a personal visit or real time chat to make contact and assure the quality of their work.” (Janes)

Time management

For both tutors and students, it appears that time and workload management may be the key factors in successful online learning:

“Time management is the key for both tutors and students, as it is essential to adhere to the set framework in order to achieve effective and stimulating discussion...Feedback from the students suggests that they find scheduling their time a major issue. Establishing the correct balance between providing a flexible learning experience and a structured framework for learning is a difficult task. Acquiring the necessary skills to facilitate online conferences is challenging but stimulating, and we are all, tutors and students, learning from the experience.” (Creanor)

9.2 Preparing to tutor online

Increasingly, tutors will be entering the online environment as their first teaching experience, albeit often with experience of being an online student first. However, the training of new online tutors will have to be carefully thought through if the lessons learned by the current cohort of tutors are to be integrated.

Students and tutors both learn from the experience of working on a course online. However, it is not always possible for tutors to do their learning before they face their online student groups. Robin Mason, in her keynote paper to OTiS offered her comments on the preparation of tutors for online teaching:

“In my view, too much is made of training tutors (at least at the OU) and this makes online tutoring seem more difficult and more unknown than it really is. The components of learning to tutor online are:

- familiarity with the conferencing software and how to get online,
- comfortableness with the process of interacting online,
- knowledge of what the particular online course requires of the student.

The rest is commonsense and intelligent transferring of the art and skill of teaching to the online environment. Ultimately there is no substitute for getting online and experiencing a range of ways of interacting online.” (Mason, 2000)

These comments proved somewhat controversial at the workshop, and sparked interesting debate. However, the case studies show some agreement with the idea that the best way to learn is to learn from experience and from peers:

“...it was most fruitful to work as a peer. It was good to evaluate the ideas, even the crazy ones, with somebody else. Most of the tutors' experience concerning online course design and online tutoring was gained among distance education where the internet was only one part of

the learning environment. Tutors had to face questions like how to start a group in web based learning environment without face-to-face contacts among all participants. Knowledge and skills about tutoring online had come from the tutors' own experiences during past courses and years.” (Nurmela)

“The University of Ballarat has set up a project group to foster online development. The enthusiastic amateurs plus a few conscripts from each faculty make up the pilot group. They get training and support to develop an online unit. The idea is that these people will then spread the word to others in their area. I do not know that you can force academics into online delivery and have them do it well. But if they see success stories happening around them, and they have adequate support and training, then I think many more will be prepared to have a go. As to management, some university managers support online development with both words and resources. Others may see it as something to be done – to keep up with the competition, without being prepared to devote sufficient resources.” (Roberts)

“... track down a colleague ... that has used such systems or can provide you with access to a safer system... This allowed all the team to explore the different tools and facilities whilst learning together. It also provided us with a safe preparatory space to experiment prior to working online with learners.” (Bowskill)

The idea seems to apply to every aspect of online teaching. Bowskill reiterates the need for experience when entering the synchronous arena:

“It is obviously good sense to prepare any teaching experience beforehand. However, it is helpful if not critical that you do plan a real time session. So, how can you do this if you're new to this kind of environment? The first thing is to try and get some experience of a chat session for yourself.” (Bowskill)

10 Executive Summary: towards effective practice

“While I can give best advice to a new online tutor about what to watch for or how to react, I am struck by the notion that experience is often a good teacher.” (Janes-D 2000a)

“Being an online tutor is tough at times because our educational philosophy (student centred) does not match up with the students’ educational experiences. The tutor must use wisdom in helping students...there are limits to what a tutor can or should do...” (Muirhead-D 2000e)

Three questions were raised in the introduction:

- Why do we still think that online tutoring can principally draw its basis from face-to-face group processes and dynamics or traditional pedagogy?
- Does the literature tell us anything more than we would make as an intelligent guess?
- Do we really know what an ‘effective’ online tutor would be doing?

The OTiS participants have gone some way to answering these questions, through the presentation and discussion of their own online tutoring experiences. Literature in this area is still limited, and suffers from the need for timeliness of publication to be useful. Intelligent guesses are all very well, but much better as a source of information for online tutors are the reflections and documented experiences of practitioners. These experiences reveal that face-to-face pedagogy has some elements to offer the online tutor, but that there are key differences and there is a need to examine the processes and dynamics of online learning to inform online tutoring.

10.1 What should an online tutor be doing to be flexible?

Some of the key ideas that have emerged from this discussion of tutoring issues are:

- Tutors need to be flexible: in their roles, in their relationships with students, and in their pedagogical approaches.
- Tutors need experience. It is often said that the best way to learn is to teach, but in practice, some 'experimentation' with technology and colleagues will prepare tutors much better for their online teaching.
- Tutors need to be comfortable with technology to allow them to communicate and teach effectively with a variety of asynchronous and synchronous tools.
- Tutors need to help students to understand their role in the educational process. Learners must understand that they operate in a learner centred environment that seeks to cultivate self-directed attitudes and behaviours.
- Tutors need to facilitate online learning by developing a community that encourages learners to participate and interact, ask reflective questions, and engage in deep learning.
- Tutors need to be managers of the learning experience.

10.2 Three views

As a way of summarising the roles of a tutor and effective learning strategies, three contributions from the OTiS workshop are included below. They represent the final recommendations from practitioners for new tutors. First, from Kulp a list which focuses on pedagogic issues:

- research your audience,
- assess your learning objectives and apply appropriate instructional models,
- create shared expectations in a 'safe' environment,
- select collaborative learning situations for success,
- assign collaborative learning teams for success,
- base activities on authentic, real-world problems,
- vary the activities and ensure that they build on one another,
- pace the course,
- ensure that the instructor(s) are subject matter experts as well as trained online facilitators.

Glasson presents a comprehensive list of lessons learned from teaching by teleconferencing that could equally apply to other synchronous online learning situations:

1. The facilitator needs training in chairing a teleconference.
2. It is more effective from both a learning and a cost viewpoint to use an appropriate division of labour.
3. Devise just and equitable rules to achieve your learning aims and then stick to them.
4. Make your learning strategy clear from the outset and continually re-enforce it by constant repetition and stress the need to consider their peers in collaborative learning situations.
5. Serious students (across the intellectual range) are more accepting of a learning environment than the less serious (eg those looking for certification rather than knowledge, or a pretext for having their students' visa extended). The latter definitely prefer taught courses.
6. Students are attracted to novel approaches [of delivery].
7. The facilitator must know the idiosyncrasies of whatever tool they are using well.
8. A key factor to running a teleconference is that everyone must know when they are going to be called on (or allowed) to make a contribution.
9. An appropriate procedure can make information raising very efficient (eg "as I said I will poll you each in turn, but to save time, when I get to you, all I will be looking for is new input. So if everything of relevance has been already tabled in the earlier responses, when I get to you, please just say 'pass'").
10. People who are often reluctant to speak out or contribute in a face-to-face class are happy to contribute to a teleconference.
11. If a communication 'language' or other protocol is used in an online course its introduction must be timed (eg though pre-requisites) so that all students who need it have the necessary skill in it when comes time to use it.

And, finally, Muirhead offers some final advice for tutors, applicable to all online situations:

1. Not only ask learners to be self-directed but provide specific guidance/structure.
2. Help learners to understand and appreciate their level of academic competence.
3. Offer advice through course materials, emails, telephone calls/personalise the course.
4. Encourage personal ownership of learning that enhances self-directed attitudes/habits:
 - strive to be confident, determined and proactive,
 - learn to set short and long term learning goals,
 - know when to ask for appropriate help or assistance/cultivate relationships,
 - create a home or work environment that is conducive to studying,
 - know your learning style and use your strengths to compensate for weaknesses,
 - affirm accountability in yourself/others and celebrate each completed phase of your education.

There is of course no guarantee, but it can only be hoped that by following some of the strategies offered in this report, your own experiences of online tutoring will be like those of White and Moussou:

“We love what we do. The students seem to notice this and appreciate the depth of our enthusiasm and passion for both the subject matter and the experience of learning and facilitating interaction online.” (White and Moussou)

Appendix 2.A References and Sources

2.A.1 Conference sources cited for this topic

References to OTiS Case Studies

The case studies quoted in this chapter are listed below and are published in

Higgison, C (ed) (2000) Practitioners' Experiences in Online Tutoring: Case Studies from the OTiS e-Workshop, May 2000, Heriot-Watt University and The Robert Gordon University, online at <http://otis.scotcit.ac.uk/> (accessed 12 Feb 2001).

Anderson, Bill and Simpson, Mary (2000) Program-wide online group interaction: Developing a social infrastructure. Email Anderson wga106@psu.edu and Simpson mgs174@psu.edu.

Bailey, Paul (2000) Experiences of running online learning sets. Email 8AA [P. Bailey-1@plymouth.ac.uk](mailto:P.Bailey-1@plymouth.ac.uk).

Ballantyne, Neil (2000) Developing students' reasoning with multimedia cases and online discussion. Email neil.ballantyne@strath.ac.uk.

Bowskill, Nicholas (2000) Tutoring in real time environments. Email N.Bowskill@sheffield.ac.uk.

Clarke, Patsy (2000) Online learners doing it for themselves. Email clarke@nu.ac.za.

Cowan, John (2000) Personal development planning and self-reflection. Email John.Cowan@hw.ac.uk.

Creanor, Linda (2000) Structuring and animating online tutorials. Email l.creanor@gcal.ac.uk.

Daele, Amaury (2000) Tutoring collaborative groups at a distance. Email amaury.daele@fundp.ac.be.

Ehmann, Christa (2000) Training online tutors. Email cehmann@smarthinking.com.

Ewing, Jim (2000) e-learning is not always easy learning. Email J.M.Ewing@norcol.ac.uk.

Finkelstein, David (2000) Utilising online learning in a humanities context. Email dfinkelstein@qmuc.ac.uk.

Gilbert-Hunt, Susan and McLaine, Trish (2000) Critical thinking and learning in Health Science. Email susan.gilbert-hunt@unisa.edu.au and trish.mclaine@unisa.edu.au.

Glasson Bernard C (2000) Tutor-team led teleconferencing. Email bglasson@GTWA.com.au or GlassonB@bigpond.com.

Gwynne, Gillian and Chester, Andrea (2000) Personal identity and community in cyberspace: An evaluation of teaching and learning online. Email gillian.gwynne@rmit.edu.au and andrea.chester@rmit.edu.au.

Higgison, Carol (2000) Tutor constraints in a mixed mode course. Email Carol@icbl.hw.ac.uk.

Hird, Anne (2000) Online teaching and learning in teacher education. Email a_hird@ids.net.

Janes, Diane (2000) Teaching online in a post-graduate certificate in technology-based distributed learning. Email Diane.janes@ubc.ca.

- Juwah, Charles (2000) Developing effective online tutoring. Email c.juwah@rgu.ac.uk.
- Kennedy, David and Duffy, Tim (2000) Understanding the effort. Email david.kennedy@paisley.ac.uk and tim.duffy@paisley.ac.uk.
- Kulp, Rick (2000) IBM's "Introduction to teaching in LearningSpace" course. Email kulp@us.ibm.com.
- Labour, Michel (2000) Online tutoring – communicating in a foreign language via email. Email michel.labour@univ-valenciennes.fr.
- Macdonald, Janet (2000) Integrating online tuition with assessment at the UK Open University. Email jrm24@tutor.open.ac.uk.
- McKenzie J (2000a) Teaching through videoconferencing. Email JaneMcK@henleymc.ac.uk
- McKenzie, Jane (2000b) Enriching content teaching. Email JaneMcK@henleymc.ac.uk.
- Mikulecka, Jaroslava and Poulouva, Petra (2000) Beginners' dilemmas. Email Jaroslava.Mikulecka@vsp.cz and Petra.Poulouva@vsp.cz.
- Mohamad, Fitri Suraya (2000) Guiding teachers in web based technologies.
- Morrison, Cathy (2000) T171: the pilot year experience, a tutor's perspective. Email cathy@central-glasgow.ac.uk and cm349@tutor.open.ac.uk.
- Mottley, John (2000) Booting up the tutors: beginner workshops in online learning for fellow lecturers. Email J.Mottley@uel.ac.uk.
- Muirhead, Brent (2000) Enhancing interactivity in computer mediated classes. Email bmuirhead@email.uophx.edu.
- Neal, Lisa (2000) Best practices in the development and delivery of e-learning. Email lisa.neal@eds.com.
- Noakes, Nick (2000) Starting Small. Email lcnoakes@ust.hk.
- Nurmela, Satu (2000) Online training for online tutors. Email satu.nurmela@utu.fi.
- Phillips, Rob (2000) Facilitating online discussion for interactive multimedia project management. Email r.phillips@murdoch.edu.au.
- Pickering, Fred and Duggleby, Julia (2000) Learning to teach online (LeTTOL). Email f.pickering@dial.pipex.com and julia.duggleby@sheffcol.ac.uk.
- Radic, Nebojsa (2000) Parliamo italiano: A computer mediated course of Italian language for beginners delivered at a distance. Email N.radic@auckland.ac.nz.
- Roberts L (2000) Conducting synchronous online classes: the voice of experience. Email Lyn@ballarat.edu.au.
- Salmon, Gilly (2000) Large scale distance training for effective e-moderation for management tutors Email G.K.Salmon@open.ac.uk.
- Sharpe, Rhona and Baume, David (2000) Online tutoring for teaching and course design in higher education. Email r.sharpe@open.ac.uk.
- Street, Deborah (2000) Developing professional and IT skills online. Email deborah.street@uwe.ac.uk.
- Tammelin, Maija (2000) Exploring the roles of the tutor in a mixed mode course for university students. Email Tammelin@hkkk.fi.
- Tolley, Sarah (2000) Reflections of an electronic tutor. Email Sarah.Tolley@EADTU.NL.

- White, Nancy and Moussou Mihaela (2000) Facilitating interaction in an online environment. Email nancyw@fullcirc.com.
- Zimmer, Bob and Alexander, Gary (2000) Using Carl Rogers' communication principles to facilitate mutually supported learning online. Email R.S.Zimmer@open.ac.uk.

References to OTiS Discussions

- Authors of discussion contributions quoted in this chapter are listed below.
- Ballantyne, D (2000) 10 May 2000 Subject: none Discussion forum: OTiS – Tutor Roles, available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Bowskill, N (2000b) 10 May 2000 Subject: none Discussion forum: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Blom, D (2000) 11 May 2000 Subject: the students educational experiences. Discussion forum: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Clarke, W (2000a) 10 May 2000 Subject: Starting point. Discussion Forum: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Clarke, W (2000b) 10 May 2000 Subject: none Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Clarke, W (2000c) 10 May 2000 Subject: what does the tutor need to do? Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Creanor-D (2000) 9 May 2000 Subject: Interactivity commenting on Muirhead's case study.
- Daele, A (2000a) 11 May 2000 Subject: none Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Daele, A (2000b) 6 July 2000 Subject: towards a framework? Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Gwynne, G (2000) 6 May 2000 Subject: Discussion Questions, comment on Gilbert-Hunt and McLaine's Case Study.
- Hird, A (2000a) 10 July 2000 Subject: pedagogy and roles Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Janes, D (2000a) 12 May 2000 Subject: tutor and student skills. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Janes, D (2000b) 29 June 2000 email message.
- McKenzie, J (2000a) 10 May 2000 Subject: MultiSkilling. Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).

- McKenzie, J (2000b) 10 May 2000 Subject: Course completion times can exert a negative pressure. Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- McKenzie, J (2000c) 10 May 2000 Subject: up front agreement of expectations? OTiS - Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- McKenzie, J (2000d) 10 May 2000 Subject: What do we mean by effectiveness? OTiS - Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Morrison, C (2000) 6 May 2000. Subject: time factors, commenting on Creanor's case study.
- Muirhead, B (2000a) 10 May 2000 Subject: good online class discussions. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Muirhead, B (2000b) 10 May 2000 Subject: Tutor skills. OTiS - Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Muirhead, B (2000c) 10 May 2000 Subject: tutor questioning: Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Muirhead, B (2000d) 10 May 2000 Subject research on online class discussions Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Muirhead, B (2000e) 10 May 2000 Subject: research/experience. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Muirhead, B (2000f) 12 May 2000 subject: group discussion themes. Discussion Forum: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Noakes, N (2000a) 11 May 2000 Subject: one strategy Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Noakes, N (2000b) 10 May 2000 Subject: none Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Noakes, N (2000c) 10 May 2000 Subject e-moderator role Discussion Room OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Noakes, N (2000d) 10 May 2000 Subject: none Discussion Room: OTiS – Tutor Roles (2), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Rosie, A (2000a) 10-May 2000 Subject: Different? Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Rosie, A (2000b) 10-May 2000 Subject: The cultural. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).

- Rosie, A (2000c) 10 May 2000 Subject: online learning Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community Area (accessed 12 Feb 2001).
- Rosie, A (2000d) 11 May 2000 Subject: deep and surface. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Tolley, S (2000a) 10 May 2000 Subject: good role models. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Tolley, S (2000b) 10 May 2000 Subject: negative impact. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Tolley, S (2000c) 10 May 2000 Subject: structure. Discussion Room: OTiS – Best Practice for Effective Tutoring (9), available online at <http://vls.scotcit.ac.uk/> in the Community area (accessed 12 Feb 2001).
- Webster, C (2000) 8 May 2000. Subject: time commenting on Creanor's case study.

2.A.2 External references

- Alexander, W, Higgison, C and Moge, N (1999) Videoconferencing in Teaching and Learning: Case Studies, TALiSMAN/LTDI. Available online at <http://www.icbl.hw.ac.uk/ltidi/ltidi-pub.htm#VCStudies> (accessed 12 Feb 2001).
- Berge, Z. L. (1995) Facilitating Computer Conferencing: Recommendations from the field. *Educational Technology*, 35(1) 22-30.
- Collins, M and Berge, Z L (1996) Facilitating Interaction in Computer Mediated Online Courses. Background paper for our presentation at the *FSU/AECT Distance Education Conference*, Tallahassee FL, June, 1996. Online document, available at <http://star.ucc.nau.edu/~mauri/moderate/flcc.html> (accessed 12 Feb 2001).
- CSALT (2001) *Effective Networked Learning in Higher Education: notes and guideline*, Networked Learning in Higher Education Project (JCALT), published by the Centre for Studies in Advanced Learning Technologies, University of Lancaster, January 2001 [online]. Available at http://csalt.lanacs.ac.uk/jisc/guidelines_final.doc (accessed 28 Nov 2001)
- Duggleby, J (2000) *How to be an Online tutor*. Gower.
- Dunkin, R. (2000) The institutional support perspective. Keynote presentation to OtiS workshop 'Developing online tutors' available online at <http://itlearningspace-scot.ac.uk/courses/keynotes/module5/main.cfm> (accessed 29 March 2001).
- Harasim, L, Hiktz, S R, Teles, L and Turoff, M (1997) *Learning Networks: A field guide to teaching and learning online*. MIT Press, Cambridge.
- IITT (2000) Competence Frameworks – Online Tutors, Competencies for online tutors available online at <http://www.iitt.org.uk/c-onltutor.htm> (accessed 14 Feb 2001).
- Kulp, R. (1999) *Effective Collaboration in Corporate Learning: Ten Best Practices for Curriculum Owners, Developers and Instructors*. IBM Learning Services, IBM Business Machines Corporation.
- McAlpine, M and Higgison, C (2001) New Assessment Methods in C Higgison (ed) *Online Tutoring*, Heriot-Watt University and The Robert Gordon University, available online at <http://otis.scotcit.ac.uk/e-book> (accessed 2 April 2001).

- Mason, R (2000) Online Tutors: topical issues. Keynote presentation to OtiS workshop 'Developing online tutors', 8-12 May 2000.
- Muirhead, D (1999) Attitudes toward interactivity in a graduate distance education program: A qualitative analysis. Dissertation.com. Parkland, Florida.
- Open University (2001) T171 You, your computer and the net. Tutor Counsellor resource pack.
- Palloff, R M and Pratt, K (2000) Effective strategies for the online classroom. Keynote presentation to OtiS workshop 'Developing online tutors' available online at <http://itlearningspace-scot.ac.uk/courses/keynotes/module1/main.cfm> (accessed 27 March 2001).
- Priest, L (2000) The story of one learner: a student's perspective on online teaching in White, K W and Weight, B H (2000) *The online teaching guide*, pp. 37–44. Allyn and Bacon.
- Daniel, J and Roberts, S (1999) Changing needs; changing study patterns in Thorne, E (ed) *Universities in the Future*. Office of Science and Technology, Department of Trade and Industry, HMSO.
- Rowntree, D (1995) Teaching and learning online: A correspondence education for the 21st century? *British Journal of Educational Technology*, 26 (3), 205-215. (Quoted in Muirhead).
- Salmon, G. (2000) *E-moderating: the key to teaching and learning online*. Kogan Page
- Zimmer, B, Harris, R, Muirhead, B (2000) Building and Online Learning Community in Higgison, C. (ed) *Online Tutoring*, Heriot-Watt University and The Robert Gordon University, available online at <http://otis.scotcit.ac.uk/e-book> (accessed 12 Feb 2001).

2.A.3 Authors Details

Sarah Cornelius is a Consultant in Distance and Online Learning based in Aberdeen, Scotland. Working with clients in Higher Education and the private sector Sarah is involved in the design, authoring and delivery of learning materials in the fields of online learning, e-Business and Geographical Information Systems. She has also helped to obtain funds for the development of learning materials and conducted staff development activities associated with online learning. Sarah is co-author of a successful textbook – *An Introduction to Geographical Information Systems* – and an online tutor for the Open University, teaching on the MA in Open and Distance Learning and an introductory course 'You, your Computer and the Net'. Sarah worked previously as a Senior Lecturer at Manchester Metropolitan University. She has also held a Visiting Lectureship at the Vrije Universiteit, Amsterdam.

Carol Higgison is based at the Institute for Computer Based Learning at Heriot-Watt University in Edinburgh where she advises staff on the use of information and communication technologies (ICT) for learning, teaching and research. Carol is currently project manager of the Online Tutoring Skills project (OTiS), in partnership with the Robert Gordon University, and is co-author and editor of the OTiS e-Workshop publications. Carol is an online tutor for Open University, teaching on the MA in Open and Distance Learning. Previously Carol co-ordinated a national staff development programme to support the effective application of ICT in higher education.