

E-Primer Series

No. 2: E-Education and Faculty

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Updates available from <http://e-ako.blogspot.com>

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2.0 E-Education and Faculty

According to Ferdig (2006), good pedagogy, good people and good performance are three key ingredients for innovation in education. The three are certainly inseparable. Pedagogy determines educational design, people (developers and faculty) provide the interpersonal element during educational delivery, and performance actualises the mix. This E-Primer considers Ferdig's three ingredients as they apply to e-learning and also examines e-learning's implications for job descriptions and workload.

It is naïve to believe you can adopt e-learning without making any changes to how you teach and work in a tertiary setting, but any changes depend on the way e-learning is used. E-Primer 1 suggested that e-learning can be used in on-campus, flexible/mixed/blended/resource-based, and distance education settings. Of these different modes of learning, analysis of flexible/mixed/blended/resource-based learning (hereafter referred to as *hybrid learning*) is most useful to establish how e-learning can change the role of the educator. This E-Primer considers the issues from a social constructivist framework expressed through hybrid learning.

2.1 Teaching and learning: context revisited

In E-Primer 1 I suggested that we can apply e-learning to existing educational theories. I'll use this theme again to discuss the role of faculty who use e-learning. The term *faculty* will be used in this E-Primer in its most encompassing sense. It includes teachers, instructors, tutors and any educators employed in an academic capacity.

2.1.1 Consistencies in teaching and learning

In hybrid and online learning contexts, most of a faculty member's role is the same as it would be in more traditional teaching. The main difference is that of emphasis; some tasks become greater, some lesser. Anderson (2004:273) writes:

Learning and teaching in an online environment are, in many ways, much like teaching and learning in any other formal educational context: learners' needs are assessed; content is negotiated or prescribed; learning activities are orchestrated; and learning is assessed. However, the pervasive effect of the online medium creates a unique environment for teaching and learning.

The dynamics of the online environment make it necessary for faculty to change their role, but the nature of the change is not fundamental to being a member of faculty. To appreciate the contribution e-learning can make to teaching and learning processes, it is worthwhile examining a general model. It is notoriously difficult to model the dynamics of teaching and learning in ways that will appeal to everybody, so the discussion here will certainly not be comprehensive. Hall and Kidman (2004) propose a relational map of teaching and learning based on the traditional model of interaction between faculty, students, and content shown in Fig. 1.

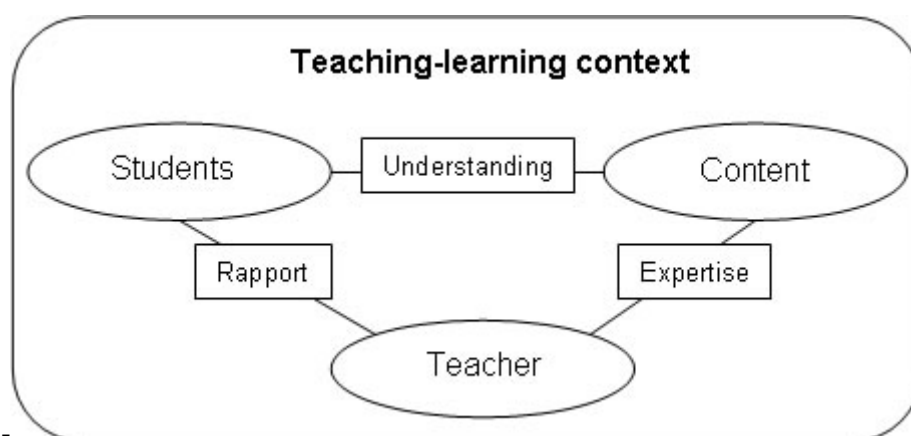


Figure 1 – Relational map of teaching and learning (adapted from Hall & Kidman 2004)

Within the teaching and learning context students, content and faculty interact through rapport (teacher/student), understanding (student/content), and expertise (teacher/content). (The term *content* is used to describe the knowledge, skills, and values that are relevant to the course.)

It is important for faculty to be aware of their students' collective characteristics, for the content to 'embody the broader goals of a university education' (ibid:334), and for individual courses to fit well with in their programme context. The role of faculty is multifaceted. Hall and Kidman (2004) suggest that tertiary faculty serve as subject experts, course designers and managers, communicators, assessors, motivators/empowerers of learning, research supervisors, evaluators, bi-cultural partners, self-managers, and IT-users. The landmarks of Hall and Kidman's map work equally well for on-campus, distance and hybrid learning landscapes.

The roles of expertise, rapport and understanding are also common to on-campus, distance and hybrid learning contexts. According to Hall and Kidman (2004:336), as a part of the *expertise* element teachers are expected to:

- undertake research and study leave and report on these from the perspective of benefits to their teaching
- attend conferences in their subject to maintain currency in their research and teaching
- include their own research, and the research of others, in course content
- require students to conduct research or use research skills in assignment work
- require students to conduct laboratory experiments and participate in field trips
- use colleagues to teach in areas of their research expertise
- use external experts to give lectures or lead seminars.

Rapport consists of:

...attitude to students, mutual respect, clarity of communication, organisation of teaching, constructive feedback, faculty enthusiasm, intellectual challenge and approachability [which] are all very positively correlated and strongly linked to the building of an effective relationship between faculty and students (ibid).

Finally, *understanding* is the bridge built by students from their previous perception to the more informed one enabled by education. Hall and Kidman note that:

The role of the faculty is to provide the expertise, the course design, the teaching and assessment in such a way that students are encouraged to develop their understanding and go beyond the prescribed content (ibid).

Pratt (1999) explains that it is also possible for faculty to act differently within the teaching and learning context to facilitate different styles of learning. While all three elements (students, content, and teachers) are central to the process of education, they can interact differently. Pratt describes five perspectives on teaching, drawing on the traditional model of interaction approximated in Fig. 1.

1. **Transmission:** faculty transmit the content to the students, relying on their own knowledge; the emphasis is on *expertise*.
2. **Apprenticeship:** faculty embody the content; the *faculty* and *content* merge.
3. **Development:** faculty provide cognitive dissonance to shake up students' understandings, requiring the student to interact further with the content; the emphasis is on *understanding* through *rapport*.
4. **Nurture:** the emphasis is on learning within the students' own social context and based on their own self-efficacy; the emphasis is on *rapport* with the *faculty* as a means of enabling *understanding*.
5. **Social reform:** an ideological approach that puts the faculty at the centre but bypasses *rapport* and *expertise*; the focus is on ideology rather than the syllabus.

The work of Pratt (1999) and Hall and Kidman (2004) gives a reasonably comprehensive view of what faculty do, and how that role contributes to education. The map provided by Hall and Kidman and emphases suggested by Pratt are based on a traditional model of teaching and learning, but they provide a useful platform for understanding e-learning and the faculty role because the fundamental parties and transactions of education do not change when e-learning is applied. Rather, the same transactions can take place in different ways.

A theoretical model for e-learning is proposed by Garrison, Anderson, and Archer (2000, in Anderson 2004). Their 'community of inquiry' model proposes three *presences*:

1. **cognitive presence:** the part of the learning environment that encourages 'the development and growth of critical thinking skills' (Anderson 2004:274)
2. **social presence:** the development of a supportive learning environment that promotes collaboration and sharing of ideas
3. **teaching practice:** the course design, including design of learning activities and the teaching activity of the online academic.

It is certainly possible to see traces of the traditional Hall and Kidman model in this community of inquiry model. Indeed, if you draw lines around the three presences and arrows through the italicised text to link them, the similarities are even more striking (see Fig. 2). The main differences are, firstly, that the community of inquiry model is more specific to hybrid learning and assumes a constructivist/social constructivist philosophy; and secondly, the content element of Hall and Kidman's model has been transformed into more dynamic variables associated with 'presence'.

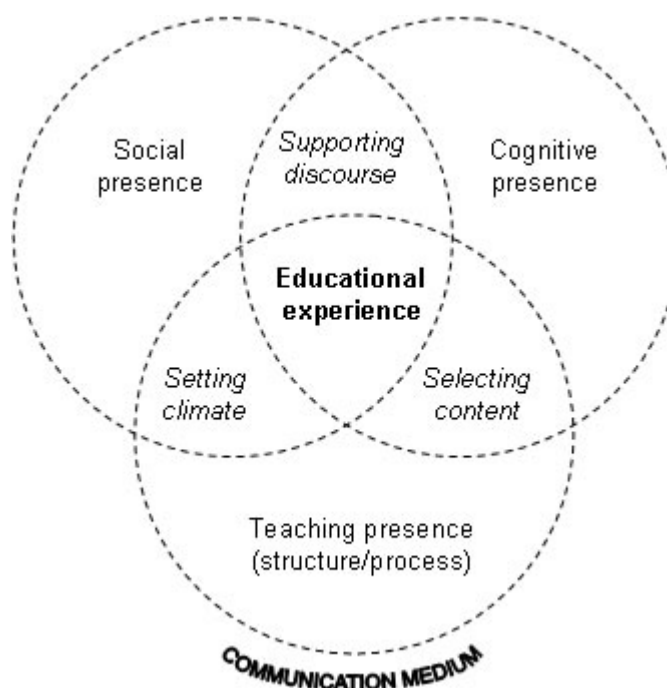


Figure 2 – Community of inquiry model (Anderson 2004:275)

You could (convincingly) argue that, at face value, the community of inquiry model is a model for social constructivism rather than specifically for e-learning (which, as proposed in E-Primer 1, *E-Learning in Context*, can be considered methodologically flexible). For this reason, the Garrison, Anderson, and Archer model might be considered too specific to represent all e-learning.

In summary, much education practice remains the same when you consider e-learning. The elements of teacher, content and student, and the fundamental transactions between them remain the same. E-learning can't (and shouldn't be expected to) break free from established education theory.

2.1.2 Contingencies in teaching and learning

So, fundamentally, there is very little difference between conceptual models of teaching and learning when you apply e-learning. The transactions between students, content and faculty are still central. However, the nature of these transactions can differ when the options of e-learning are introduced into the mix. Faculty involved in traditional distance education are suddenly given a broader range of rapport tools; these put extra demands on course design and delivery, and create new responsibilities. While the *understanding* and *rapport* relationships of Hall and Kidman's (2004) model can be enhanced through e-learning, what it means to have *expertise* does not change. However, another factor, 'Maintain proficiency with relevant educational technologies', might be added (see Table 1).

	On-campus	Distance	Hybrid	E-learning-enhancement
Understanding	<ul style="list-style-type: none"> - reading - case studies - exercises - video and audio - class - discussion - class exercises 	<ul style="list-style-type: none"> - reading - case studies - exercises - video and audio 	<ul style="list-style-type: none"> - reading - case studies - exercises - video and audio - class - discussion - class exercises 	<ul style="list-style-type: none"> - <i>simulations</i> - <i>multimedia presentations</i> - <i>internet resources</i> - <i>online discussion</i> - <i>collaborative activities</i> - <i>improved self-marking assessment and opportunities for practice</i>
Rapport	<ul style="list-style-type: none"> - lectures - tutorials - meetings 	<ul style="list-style-type: none"> - instructional materials 	<ul style="list-style-type: none"> - lectures - tutorials - meetings - instructional materials 	<ul style="list-style-type: none"> - <i>email</i> - <i>online discussion</i> - <i>synchronous chat</i> - <i>web pages</i> - <i>multimedia presentations</i>
Expertise (Hall & Kidman 2004)	<p>Undertake research and study leave and report on these from the perspective of the benefit to their teaching.</p> <p>Attend conferences in their subject in order to maintain a currency in their research and teaching.</p> <p>Include their own research, and the research of others, in course content.</p> <p>Require students to conduct research or use research skills in assignment work; Require students to conduct laboratory experiments and participate in field trips.</p> <p>Use colleagues to teach in areas of their research expertise.</p> <p>Use external experts to give lectures or lead seminars.</p>			<p><i>As for on-campus, distance, and hybrid learning, plus:</i></p> <ul style="list-style-type: none"> - <i>maintain proficiency with relevant educational technologies.</i>

Table 1 – E-learning options for teaching and learning transactions

The lists of e-learning possibilities in Fig.1 are not exhaustive, but they do demonstrate that e-learning adds some impressive educational possibilities. Later in this E-Primer we will look at the effects on workload and course design when we add some of these possibilities to existing courses. For now, we can conclude that e-learning can enhance on-campus, distance, and hybrid education in ways that are conceptually similar to the usual interactions between student, content and faculty.

Now, to provide a more concrete picture of how the three forms of education might differ, let's look at a typical day from the perspectives of three academics involved with on-campus, distance, and hybrid courses. (For the purposes of this comparison, only the hybrid learning course makes significant use of e-learning.)

2.2 Faculty stories

Let me introduce you to three fictitious members of faculty.

- Joanne is senior lecturer in mathematical studies at a College of Education. She has been lecturing for a number of years and teaches three separate classes, each for 4 hours a week. She is an experienced and competent lecturer who updates her class materials frequently.
- Alexander is a distance education course supervisor. He maintains two courses, both of which have high enrolments. His institution does not use email to contact students, even though it is used internally. His paper-based course was initially prepared 5 years ago, and is updated from time to time.
- Hine is a hybrid-learning member of faculty for a history course. She is delivering the course for the second time. Before the initial offering of her course Hine spent long hours developing it for hybrid learning, and she has produced many supplementary resources. Hine's course uses e-learning techniques in ways that are essential for the course's delivery.

Joanne, Alexander and Hine do not represent all education contexts, because these are highly variable. Many distance education courses have on-campus block courses, combining the stories of Joanne and Alexander – and it is increasingly likely that Joanne and Alexander would already use e-learning. All of the stories assume undergraduate courses. Another major assumption underlying these stories is that the cost of the original iteration of the course has been written off. This is a major assumption, but the reason for it will become clear later.

Each of these faculty members works a 40-hour week (even though the average member of faculty in New Zealand tends to work an average of 53 hours a week [Chalmers 1998]).

2.2.1 Joanne, on-campus lecturer

Joanne gathers her resources in a photocopy-paper box lid, and heads for class. She has revised this lecture substantially, and has only just managed to get the final acetates completed before the 9am start. She sets up the overhead projector in the classroom and watches as the students file in. Today's lecture on conceptual strategies for teaching mathematics has always been a difficult one, and Joanne feels that her explanations have tended to fall short. She is confident that her revisions, which include a small group exercise, will help students to appreciate the power of different conceptual strategies. Some pupils in mathematics classes tend to simply plug numbers into a formula and write the answer down – the core of Joanne's message today is that correct answers don't necessarily indicate that they understand the concept. Asking the pupil what the answer *means* generally determines whether they really understand!

The 1-hour class breezes by. The students engage with the exercise and Joanne is pleased that three students come up to her afterward to question her further about conceptual strategies. She gets back to her office at 10.20am, then goes for morning tea. She spends the rest of the morning preparing for her 1pm class, where again she feels she connects with the students. It's 2.30pm before she can start on her emails and voicemail messages, but it takes her less than half an hour to complete her correspondence and open the research file she has almost completed on her

computer. She knows she has only an hour and a half at the most to work on it, because she needs to revise the content and assemble her notes for her lecture first thing next morning. She has lectured for only 12 hours a week during semester but by the time she prepares herself mentally – and travels to and from the classroom – about 20 hours is gone. With department meetings, the usual administration tasks, and marking, there is little time left for course revision or research.

Joanne's tasks	Hours
Administration	4 hours
Further student interaction	2 hours
Lecturing contact (includes setup, walking to and from lecture)	16 hours
Marking	4 hours
Materials revision	4 hours
Meetings	6 hours
Research	4 hours
	40 hours

Table 2 – Joanne's average teaching week

2.2.2 Alexander, distance educator (paper-based)

Alexander is swamped. One of his distance education classes has 193 students, and the first assignment has just arrived for marking. He'll be able to meet his institution's policy of a 3-week turnaround, but it will be 3 demanding weeks. He also has to follow up the students who have not submitted their assignments, and the revisions for next year's offering of the course are overdue.

He has enjoyed the break from course writing and marking, because it gave him a decent block of time for research. But he knows the weeks ahead will be like swimming through molasses. When he finishes marking this lot, there will be another set of assignments from his other course. To make matters worse, the course materials contained an error that resulted in a lot of scrambling around to post corrected information to students. His second distance course is proceeding smoothly. *Just as well*, he muses as he considers the pile of marking. He sighs deeply, picks up the top assignment, and twirls his red pen.

Alexander's tasks	Hours
Administration	8 hours
Further student interaction	6 hours
Marking	10 hours
Materials revision	4 hours
Meetings	6 hours
Research	6 hours
	40 hours

Table 3 – Alexander's average teaching week

2.2.3 Hine, blended-delivery faculty (distance, with e-learning)

Hine logs in to her computer for the day. She likes to start with an overview of the online interactions in her courses, and to respond to email. She usually spends the first and last hour of each day on computer-based communications. This often takes 2 or 3 hours in the morning, but the afternoon load is usually less than an hour. Today she'll focus on re-writing the first topic of her course because it's due to be refereed by the end of the week. The meeting at 1pm will break her day in two – in the afternoon she has to add the finishing touches to a specialist lecture that she will deliver online with videoconferencing software. Such lectures are scheduled every 4 weeks or so. She sometimes invites overseas guests to contribute guest lectures or online discussion spots. She archives the online lectures and adds them to her course materials.

One of the emails Hine received overnight is from a student who has a question about the second assignment, which relates to a specific era of history. Hine copies the question into the online discussion area and prepares a detailed reply. *That way they'll all get the message*, she thinks. A student telephoned her early in the day with a reasonably urgent and difficult question about her marking feedback. Hine opens the PDF of the student's work; it also contains Hine's typed feedback inserted at the relevant point. The issue is resolved quickly and to the student's satisfaction. The rest of the day goes well. Hine enjoys the way her students are collaborating this time around. The adjustments she made to the online exercises have freed up a significant amount of her time, and she has noticed that students seem to understand the course concepts much better than they did in the previous semester.

Hine's tasks	Hours
Administration	2 hours
Direct teaching	1 hour
Further student interaction	9 hours
Marking	8 hours
Materials revision	8 hours
Meetings	6 hours
Research	6 hours
	40 hours

Table 4 – Hine's average teaching week

2.2.4 Discussion

There are a number of questionable assumptions within these accounts. Alexander's institution, for example, seems to be using a production-line type education that is far from characteristic of many classic distance education providers. But some valid observations can be made when these accounts are considered together.

First, each academic interacts with students in some way. Alexander has a large number of students in his distance course, whereas Joanne and Hine have classes of similar size. In each case, the method for interacting with students is different. In Joanne's case it is as a lecturer; Alexander's interaction takes place primarily through marking and the teaching materials he is responsible for; Hine monitors student discussion, communicates online and through the learning resources she has

generated, and spends extra time preparing detailed feedback when she marks students' work.

Second, although each academic works a 40-hour week, the nature of their activity varies considerably.

Activity	Joanne	Alexander	Hine
Administration	4	8	2
Direct teaching	16*		1
Further student interaction	2	6	9
Marking	4	10	8
Materials revision	4	4	8
Meetings	6	6	6
Research	4	6	6

* Includes setup and walking to and from class, and post-class discussion

Table 5 – Summary of activity for each story

We can see some small economies in Hine's activity list. Again I stress that these narratives are artificial, but they do illustrate that faculty who include e-learning in hybrid learning tend to have different demands on their time from those involved in more traditional forms of education.

A large proportion of Alexander's time is spent on administrative tasks and marking, a pattern that is typical for a traditional distance education provider. His communication with students is mostly reactive. Joanne's main contact with students is didactic, though she can spend an extra 2 hours a week addressing individual students and uses classroom contact time for group work and discussions. Hine is freed from some administrative duties (such as assignment management) because they are automated through the learning management system (LMS) used in her institution. She can also track student activity through the LMS, so she can see which students are on top of things and which might need to be followed up. The teaching she would normally provide through lectures is instead delivered through specially designed instructional materials (see E-Primer 3, *Designing for E-Learning*). Hine's further student interaction and additional marking time maximises teachable moments (reducing 'transactional distance', or the communications distance between faculty and student [Moore & Kearsley 1996]), and she can invest more time in materials revision than Joanne and Alexander. Further, most of Joanne's instructional activity repeats what she did in the semester before. Figure 3 contrasts academic time spent by an on-campus educator and their hybrid learning counterpart. Note that the latter can put more emphasis on customised instruction and materials revision.

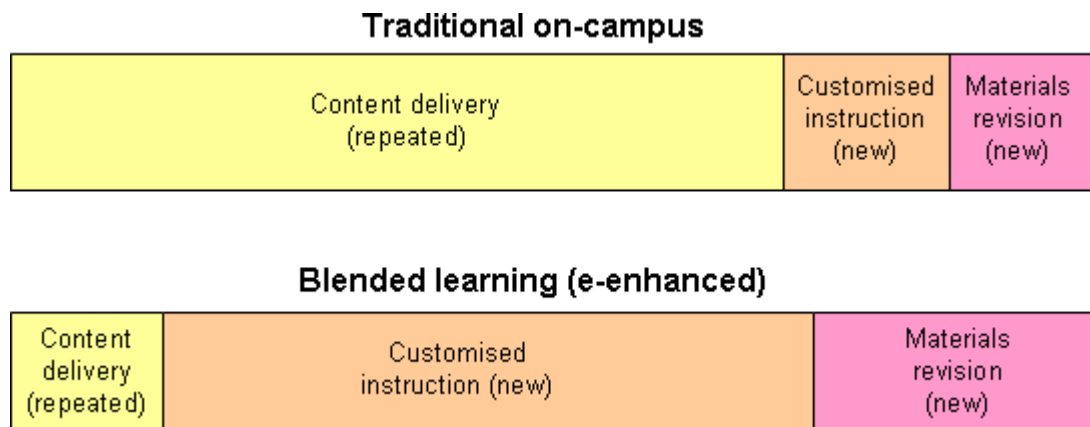


Figure 3 – Comparison of instructional activity between on-campus and hybrid delivery

In hybrid learning, customised instruction and materials revision are much more important than didactic instruction. (Note that hybrid learning uses instructional materials – see Table 1). The net result is a *different* use of time that applies faculty skills in different ways (Moore 2000) to achieve the benefits of e-learning (see E-Primer 1, *E-Learning in Context*). The time spent on materials revision for hybrid delivery can enhance the practice of the scholar–teacher. The extra time spent on customised instruction (mainly online in the case of e-enhanced hybrid learning) ensures that the benefits of scholarly activity are carried into the online classroom.

2.3 The changing role of faculty

Now let’s consider the critical responsibilities and competencies for faculty who use e-enhanced hybrid learning. It’s also a good time to reflect on a classic dichotomy presented in some e-learning related literature. You will rarely read about the role of faculty in e-learning and hybrid delivery without coming across some reference to faculty being a ‘sage on the stage’, contrasted with the more preferable ‘guide on the side’. The former is typically a straw man, portrayed as having negative didactic tendencies. The latter is usually described in glowing terms as the facilitative coach who sees their role as drawing learning out of the student. In fact, faculty in e-enhanced hybrid learning settings should have characteristics of both the sage and the guide. Faculty remain experts on the subject; their perspective and instruction is therefore a valuable component of the students’ educational experience. However, Fig. 3 shows that, in e-enhanced hybrid learning settings, faculty have more potential to customise instruction for their students. Care must be taken that this opportunity is used productively.

In e-enhanced hybrid learning a guide on the side will give clues rather than answers, and encourage academic discourse between the learners themselves. But the sage on the stage is also present as a point of reference, source of knowledge, and designer of the overall learning experience. While some call for a radical embrace of the guide-on-the side role in hybrid learning, this should be tempered with the recognition that only a well-qualified guide can effectively facilitate knowledge acquisition, and that the role of the guide provides educational leadership rather than companionship. An effective guide is also a sage and will, from time to time, stand on the stage to lead.

So a member of faculty using e-learning effectively is a blend of guide and sage. A comparison between classroom and online teaching activities by Spector and de la

Teja (2001) shows that such faculty need to master a more diverse set of competencies than their traditional classroom equivalents.

Setting	Location of learners	Use of IT	Temporality of activities	Type of activity
Classroom	Same location	<ul style="list-style-type: none"> - presentation of topics - consultation 	<ul style="list-style-type: none"> - synchronous 	<ul style="list-style-type: none"> - similar for all learners - mainly faculty-led - discussions and small group work
Online	Distributed	<ul style="list-style-type: none"> - presentation of topics - consultation - management - production (eg distributed, collaborative edition of a text) - wide range of interactions - one to one; one to many; many to one; many to many 	<ul style="list-style-type: none"> - synchronous (eg tele- and videoconferencing, simultaneous broadcasts) - synchronous (eg threaded discussions) - synchronous and asynchronous (eg live broadcast of a remote speaker and archiving for reuse) 	<ul style="list-style-type: none"> - according to individuals - mainly learner-centred - individual and/or collaborative work (small, medium or large groups)

Table 6 – Comparison of online and classroom teaching activities (Spector & de la Teja 2001)

Of course it is possible to provide didactic instruction or lectures over the internet, and there is good evidence that online students appreciate presentations made by a subject expert (Chung 2005). Laboratory demonstrations, showing how calculations are derived, and demonstrating how processes work, might benefit from a lecture-type session. Subject overviews, which are the matter of traditional lectures, also have their place. You can use applications such as Camtasia (<http://www.techsmith.com>), PresenterONE (<http://www.realnetworks.com>) and Adobe Acrobat Connect (<http://www.adobe.com>) to add voiceovers to PowerPoint slideshows for delivery over the internet. As mentioned in E-Primer 1, *E-Learning in Context*, you can also use applications such as Connect, Elluminate, and Horizon Wimba to deliver lectures live over networks, and Lectoria to record live lectures and publish them to the internet. Digital video on CD-Rom or DVD can also be used.

If e-learning is 'pedagogy empowered by technology', the skills needed for e-learning are both pedagogical and technical. Of these, the pedagogical skills are the most important. As implied in Hine's story, e-learning pedagogies tend to generate a more intimate faculty–student relationship, and e-enhanced hybrid learning tends to use resource materials that are not usually part of an on-campus or pure distance course. Most faculty who use e-enhanced hybrid learning make use of asynchronous communication tools.

Note: Although this E-Primer assumes that e-learning is applied according to constructivist and social constructivist philosophies, this is not the case for all e-learning (see E-Primer 1, *E-learning in Context*).

2.3.1 Competencies for faculty engaged in hybrid delivery

Many studies have examined the competencies that faculty need for successful hybrid learning. Most assume that courses are completely online, and that course materials already exist, but the skills online faculty need are essentially the same for e-learning in hybrid and on-campus settings. Some suggest that a good teacher is a good teacher whatever the medium, provided they learn how to use the technical tools and are confident in the online environment (Schmoller 2003; Anderson 2004). Kulp (in Cornelius & Higginson 2000:2–7) states that faculty already tend to have subject and pedagogical expertise, and basic technical skills. To extend into the online environment, faculty must also 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.’

Bonk et al (2001, citing Ashton et al 1999 and Mason 1991) suggest that online faculty have pedagogical, social, managerial (administrative) and technological roles, while the Commonwealth of Learning (2003:39) lists four general roles:

1. **supportive:** helping learners deal with issues not related to content, that may affect their learning
2. **guiding:** helping learners to understand the content and its relationship to their learning goals.
3. **enabling:** helping learners to develop and apply appropriate learning processes effectively.
4. **administrative:** making the link between learners and institution on administrative issues.

However, the Commonwealth of Learning list assumes a *general tutor role* rather than a *specialised faculty role*. For the latter, faculty competencies suggested by the International Board of Standards for Training, Performance and Instruction (IBSTPI), subscribed to by a number of universities and training agencies, are preferred (IBSTPI 2003):

Professional foundations

- Communicate effectively.
- Update and improve one’s professional knowledge and skills.
- Comply with established ethical and legal standards.
- Establish and maintain professional credibility.

Planning and preparation

- Plan instructional methods and materials.
- Prepare for instruction.

Instructional methods and strategies

- Stimulate and sustain learner motivation and engagement.
- Demonstrate effective presentation skills.
- Demonstrate effective facilitation skills.
- Demonstrate effective questioning skills.
- Provide clarification and feedback.
- Promote retention of knowledge and skills.
- Promote transfer of knowledge and skills.

Assessment and evaluation

- Assess learning and performance.
- Evaluate instructional effectiveness

Management

- Manage an environment that fosters learning and performance.
- Manage the instructional process through appropriate use of technology.

The strength of the IBSTPI list is its well-rounded appreciation of faculty's broader responsibilities in a hybrid learning environment, including course design and delivery as well as adhering to professionalism. But interestingly, there is no mention of developing and promoting critical and analytical skills (Rosenberg 2006). More recently than availability of the IBSTPI list, Heuer and King (2004) have provided a comprehensive list of competencies in response to survey data and note that:

...participants described the role of the faculty in online learning in many different ways. This role was dynamic and changed throughout the course. At times the instructor was expected to be an expert, demonstrating mastery and experience with the material. At other times, the instructor was a facilitator, prompting discussion with well-timed and well-tuned comments. In online instruction, the students have technical, content, affective, and cognitive concerns and are at different levels to which they expect the faculty to respond.

Implicit in these findings is that online faculty are flexible, involved, responsive and deliberate in their dealings with students. Heuer and King (2004) suggest that online faculty are organised and technically competent; lead and model online behaviour; encourage individuals and create a team of learners; guide students toward understanding; and foster communication with and between learners. In summary, it could be said that the role of faculty is as hybrid and flexible as hybrid learning itself.

More pragmatically, Morris, Xu and Finnegan (2004) found that online faculty see themselves as having three primary roles: course customisation, course facilitation, and grading and assessment. These characteristics can be seen within the more pragmatic competencies suggested by Lynch (2002) and Schrum and Hong (2002):

- Set electronic office hours – times during which you will guarantee a quick email turnaround, or are available for an instant chat session or phone call.
- Establish community – typically by posting biographical messages in an online discussion forum, but ideally an initial face-to-face meeting or informal gatherings during the course. This might include a 'welcome' email that models the communication style for online exchange.
- Maintain one-to-one interaction – particularly with those lagging behind.
- Encourage student collaboration – particularly with assignment tasks.
- Establish minimum expectations – particularly with regard to online interaction.
- Provide challenging course materials that are well prepared and up to date.
- Encourage open communications – provide space for students to interact informally with one another, where they can openly ask questions of faculty.
- Permit flexible outcomes by designing assignments in which students can choose a topic of interest and/or within the instructional materials themselves.
- Be 'techno-minimalist' – use a few simple technologies.

More specific competencies for course design and online discourse are covered in E-Primer 3 *Designing for E-Learning*, and E-Primer 4 *Online Discourse* respectively.

2.3.2 Providing feedback

One role highlighted in the previous stories was that of providing feedback. In the hybrid learning case, Hine allocated a significant amount of time to marking assignments. The reason for this was twofold:

1. Students appreciate clear and full feedback on their assignments. Kelly and Swift (1983, in Thorpe 1993:85) evaluated different aspects of the UK Open University from a student’s perspective and found the following:

Attributes of comments	% Very Important / Fairly Important
Analysis and clear explanation of where things went wrong and why	78% / 17%
Constructive criticism – helpful and encouraging comments	68% / 25%
Understanding the reasons for grade awarded to assessment	52% / 30%
Assessment of general progress at several stages throughout the year	33% / 33%

Table 7 – Student’s requirements in assessment feedback

The same research also reported that most students read assessment comments very carefully, and follow up on their marker’s suggestions. However students need assessment feedback fairly quickly for it to be effective. A 2-week turnaround of assessments is realistic and desirable. You can also provide model answers to assessment tasks at this time, so students can see their errors and the remedies. Using technologies such as the internet, you can provide generic feedback to the entire student group. This has the added benefit of enabling students to learn from each other’s mistakes as well as their own. To maximise the effect of student feedback, ask students to estimate the grade they think they deserve for the assessment task, to say why, and to describe what they learned as they prepared their assessment. You can then provide specific feedback based on the student’s perceptions of their work.

2. Detailed academic feedback makes the most of teachable moments at point of need. Ramsden (2003:187) writes that ‘It is impossible to overstate the role of effective comments on students’ progress in any discussion of effective teaching and assessment’. Detailed feedback when they need it directly addresses areas of student weakness and can also reinforce positive behaviour such as effective argument, appropriate referencing, and sound structure.

While the importance of providing feedback is not unique to e-learning, some techniques are.

Increasingly, students submit word-processed assignments in electronic formats. These documents can be easily marked up using tools such as Microsoft Word’s ‘Add Comment’ feature, so you can type comments and suggest rewording directly on the student’s work. You can use a bank of comments to address common mistakes (such as poor referencing) in detail; these can be copied and pasted into student work as required. Finally, faculty can prepare class-wide debriefs that identify common mistakes and model responses, and store them in an LMS. These activities take more time, but they also add significantly to student learning.

In a 1996 guide, the Massey University Centre for University Extramural Studies (CUES 1996:13–14) provided comparisons of actual feedback, with commentary.

Comparison between two ways of giving positive feedback	
Feedback	Commentary
<p>Option A</p> <p><i>This paper is very competent. Well done. You’ve made a lot of progress since your last assignment, and you can feel well pleased with your efforts. Keep up the good work.</i></p>	<ul style="list-style-type: none"> - Unspecific and comprises general comments that could be made about several assignments. - Unclear about exactly what was good about the assignment. - Student will be left with a warm glow but there is nothing specific for the student to learn.
<p>Option B</p> <p><i>Michelle,</i></p> <p><i>This assignment is very competent. Well done. You’ve made a lot of progress since your last assignment, particularly in three important areas:</i></p> <ol style="list-style-type: none"> <i>1. You’re more careful about citing evidence in support of your arguments, e.g. at the bottom of p.12 where you’re proposing critical thinking as an important domain of learning.</i> <i>2. You’ve taken much more trouble to acknowledge viewpoints critical of your own eg. Skinner, p.7.</i> <i>3. You’ve begun cutting down on your use of impenetrable jargon. Pages 4-6 and 11-13 were models of clear writing, although there’s one example of your old habit on p.8!</i> 	<ul style="list-style-type: none"> - Specific description of what is good. - Strong future orientation; student is pointed to areas on which to focus for further growth. - Student gains a sense that the marker has taken the work seriously and has read it carefully.

Table 8 – Comparison of positive feedbacks (adapted from CUES 1996)

Comparison between two ways of giving negative feedback	
Feedback	Commentary
<p>Option A <i>(Note: Marked 5 weeks after submission)</i> <i>This assignment standard is well below that set by the Department for this paper. You demonstrate a number of deficiencies, not the least of which is that it is too short. The task demanded more input and analysis, and if this is going to be the nature of future submissions then you may need to reconsider your position in the paper. Do put in more effort.</i></p>	<ul style="list-style-type: none"> - No specific details of the problems and student is left with feelings of inadequacy. - Suggestion is that student was lazy, whereas the problem might have been illness etc. - Assessment comes 5 weeks after submission, by which time the student is busy with next assignment. - Telling student to improve by applying more effort is virtually useless advice.
<p>Option B <i>(Note: Marked 1 week after submission)</i> <i>Michelle,</i> <i>There are some shortcomings in this assignment. It is your first assignment, and if you have the time and inclination, and wish to rewrite it, I am prepared to remark it. There is no compulsion for you to do this, but if you choose not to, the grade will reflect the present standard.</i> <i>Firstly, it is too short by about 30%, and this means that it lacks the substantiation necessary to argue your case effectively. Examples include p2 and p4 where I have marked two of your points with an asterisk; you make assertions with general statements, but you have no supporting evidence (Barker and Snowden provide case-studies in both instances, but you have not referred to them).</i> <i>Next time, try to analyse your material more thoroughly. Make a plan of the main points you want to include and, before beginning your first draft, ask yourself: How and why is this relevant? What is the significance of this? How does this relate to that? What kind of inferences can I draw from this? And what conclusions?</i> <i>To write well, you need to plan carefully and give yourself enough time. An essay of 1500 w should take about 3 weeks of part-time extramural study. Do a little bit rather than a lot at once. I suspect this was a bit of a rush. What other improvements do you think you could make?</i> <i>Indications are that you are capable of good work, and I look forward to your next essay in April. You could look on this assignment as a learning tool.</i></p>	<ul style="list-style-type: none"> - Feedback is prompt and student is addressed by name, which personalises the communication. - Concrete and specific about way student might improve. - Student is directed to three main areas of focus to incorporate into the next assignment. Any more than three would usually be too many.

Table 9 – Comparison of negative feedbacks (adapted from CUES 1996)

If your students submit their assignments electronically, you can use anti-plagiarism services such as Turnitin (<http://www.turnitin.com>), and keep archives of student work – this means markers can confirm student progress across submitted work. Learning

management systems also have many tools that create automated (self-marking) tests. Hot Potatoes (<http://hotpot.uvic.ca/>) is one of several applications that can be used to develop self-marking exercises (including crosswords and quizzes) outside the LMS.

2.3.3 Faculty as course designers

Much faculty activity in a hybrid learning setting depends on the extent to which they are expected to design and/or deliver a particular course (see E-Primer 3, *Designing for E-Learning*). Some courses are designed by teams (that include faculty), and delivered by either a faculty member on this team or adjunct teachers. For others, the faculty member is both course designer and teacher. There is a wide variation between these two possibilities. It is often argued that faculty should *not* be expected to design *and* deliver online courses (and, it should be added, hybrid learning courses) on their own. Oblinger and Hawkins (2006:14) write:

Few faculty have had formal education or training in instructional design or learning theory. To expect them to master the instructional design needed to put a well-designed course online is probably unrealistic. A more effective model is to pair a faculty member with an instructional designer so that each brings unique skills to the course-creation process.

Oblinger and Hawkins suggest that the pedagogies and technologies used for e-learning raise questions that faculty should not be expected to answer, and to possibilities that they may not be aware of. They also suggest that instructional and multimedia design is not an efficient use of academic time. Historically, online courses designed solely by faculty have tended to result in acontextual online content and seldom-used discussion forums, rather than genuine learning communities. Linking specialist designers and media developers with faculty generates a powerful mix for course design.

2.3.4 Conclusion: the ideal member of faculty

Haag (1990, in the *Commonwealth of Learning* 2003:35) provides a succinct summary that, though behavioural at face value, reflects a particular value set:

The ideal tutor is a paragon: she or he is consistent, fair, professional in standards and attitudes, encouraging but honest, unbiased, kind, positive, respectful and accepting of students' ideas, patient, personal, tolerant, appreciative, understanding and helpful. Marking by a tutor of this sort will provide the best possible feedback, a crucial, and for most learners, central part of the learning process. This tutor or faculty:

- provides clear explanations on his or her expectations and marking style
- welcomes extra questions
- "locates one's faults but corrects them kindly" says a student, "and she explains why marks have been lost or awarded"
- makes thorough but cheerful and constructive comments (in contrast with another student's plaintive remark: "the comments left one feeling criticized, threatened and nervous")
- gives an extra boost to encourage a student in difficulties
- clarifies points which have not been easily grasped or correctly learned
- is helpful in achieving the student's objectives
- offers flexibility when it is needed
- shows a genuine interest in motivating learners (even for those who are beginners and so perhaps at a less interesting stage for the tutor)
- writes all corrections legibly and at a meaningful level of detail
- above all returns assignments promptly.

So it seems the ideal tutor or instructor is the one who treats his or her students and s/he would want to be treated, who is approachable as a real person (signs the assignment comments, responds to letters and phone calls promptly and without fail) and who provides the most extensive and encouraging comments.

It is easy to see the similarities between on-campus, distance and hybrid learning, and that the skills that faculty need to design e-learning and hybrid courses enable them to behave in ways that have previously not been possible.

2.4 Workload issues

So, there is a somewhat different role for faculty in e-learning enhanced hybrid learning settings. While the actual values and general behaviours remain the same, there are differences in emphasis of activity.

There is no easy answer to the question of how workload should be allocated in hybrid learning environments. It is certainly not appropriate to measure academic workloads in terms of teaching time or the equivalent of classroom contact time, because the role of online faculty is complex and variable. McPherson (2002:2) seems to provide the best advice: 'Negotiation between teachers and their managers is the key... as it provides a way to acknowledge the diversity of roles and tasks that a particular teacher is taking.' The need to re-negotiate job design has been identified in the Australian Vocational Education and Training (VET) sector (McNickle & Cameron 2003) because existing job descriptions do not adequately capture the levels of 'technical expertise and teaching skills [that are] essential' for new forms of teaching.

Should comparison studies consider the time it takes to design a course? Spector (2005) leaves consideration of course design out of his study – and little wonder – there is no doubt that creating an online course (or one for hybrid learning) takes significantly more time than designing one for on-campus delivery (Rumble 2001; Morris, Xu and Finnegan 2005). Higher costs are partly due to the work and resources required for authoring e-learning enhanced hybrid learning courses, and to the variety of media and online options available (Rumble 2001).

2.4.1 Design time and cost

Comparing the productivity of on-campus and hybrid learning course design is difficult because design time is not clearly separated from on-campus teaching. It is also often far from clear as to which development costs should be included in a particular analysis, because the definition of 'development costs' varies from one institution to another (Rumble 2001). Further, actual course design can be as varied as the course designers themselves unless they use a common design framework to reduce variability (Churchill 2006). There is evidence that, when we consider a year's activity, distance education courses (which, from a design perspective, have much in common with hybrid learning ones) can take less preparation than face-to-face ones (DiBiase 2000). Much depends on the academic level of the course being designed, the role of additional course media, the role of online faculty, and the e-learning techniques employed. To add to the difficulty of calculating costs, course development costs are not well categorised. Rumble (2001:76) remarks that 'The failure to annualise course development costs is problematic given that the length of life over which courses last is a major factor in the overall efficiency of technology-based education'. E-learning enhanced hybrid learning courses can have lower operational costs than on-campus ones; however, initial production costs are higher. Rumble notes that course design

'behaves very much like capital expenditure' (ibid), but it is frequently treated as operational.

Parts of a hybrid learning course can be created as the course progresses by using asynchronous discussion and adding online content. But most of the development should be completed well before the course is offered. Such development might include preparing assessment tasks, generating multimedia resources, finalising readings and course materials, generating discussion topics and collaborative tasks, and assembling supplementary resources. Because the media mix can be so diverse, it is difficult to even guess the cost of course design. Bates (in Rumble 2001) suggests that, even when including development costs, online learning compares favourably with on-campus learning over 4 years as long as student numbers are between 20 and 40. Bates assumes an asynchronous use of e-learning, and comments that developing multimedia resources can increase costs dramatically.

Most of the literature about workload compares online learning with its on-campus counterpart. Because much of the interaction with students in hybrid learning takes place online, we can apply the lessons from these comparisons to a wide variety of courses. The findings of studies also vary widely because of the number of faculty who have used different instructional strategies for courses that have been designed in different ways. Significantly, in terms of delivery time, 'how one teaches online, it seems, is more pertinent than the number of students' (DiBiase 2000:8). For very large courses it is not uncommon to employ adjunct faculty, otherwise DiBiase's comment seems to hold true. Still, there is a great deal of tension in literature between on-campus and hybrid learning workloads, and comparison studies have not been able to come to clear conclusions. They have, however, identified some key considerations.

2.4.2 Comparison studies

Data from studies that compare online and on-campus teaching is far from conclusive, as each study assumes a faculty role not representative of all courses. Shaw and Young (2003) compared an on-campus course with its online (hybrid) equivalent, and concluded that the online course required substantially more faculty time for both design and delivery. Though actual student outcomes were consistent, the online course took 621 hours to prepare and, on average, 30 per cent more time to deliver each semester. This is certainly at odds with claims that e-learning can use faculty time more efficiently! It appears, though, that Shaw and Young were not optimising faculty activity, and were trying to replicate the on-campus experience in an online environment. Most of the extra faculty time was spent corresponding with individual students by email, answering questions relating to user support, and addressing content-related questions. A similar study by DiBiase (2000) showed a reduction from 3.2 hours per student per week (on-campus) to 2.7 hours (online); DiBiase attributes this discrepancy to the online course being well designed. An empirical study by Thompson (2004), which analysed courses in different disciplines, found that actual time on task for on-campus and online faculty was comparable, but the 'chunking' of time for the latter made it more efficient. Online faculty who were able to plan their time had a lower overall workload than their on-campus peers. But more recently, Tomei (2006) suggested that an online course takes at least 14 per cent more time than an on-campus one. Tomei calculates that an optimum class size is 17 on-campus students or 12 online students. However, in Tomei's study online faculty spent more hours addressing instructional content than their on-campus counterpart. This is not typical of faculty behaviour in online or hybrid settings.

Lazarus (2003) suggests that asynchronous online discussion takes up the greatest amount of faculty time, and found that online faculty tend to spend 3 to 7 hours per course per week in online activity. Lazarus concluded that this level of activity 'falls within the range of reasonable expectations for teaching' (2003:47) and notes that students participated in the online discussions more than faculty did. The class size for both courses in Lazarus's sample was 25. More recently, Spector (2005) compared online and on-campus courses and, while finding comparative learning outcomes and retention, noted that even experienced faculty invested more time in the online course. Students tended to invest slightly less time in online courses, but appreciated the flexibility that the mode offered. As with the Shaw and Young (2003) study, faculty in Spector's survey found that email accounted for the greatest amount of time.

Achieving efficiency gains through e-learning requires planning for the peaks and troughs of busyness, and implementation of particular design and delivery strategies. Fortunately, much work has been done in identifying these strategies – and they are proven to work (Lazarus 2003; Morris, Xu and Finnegan 2005).

2.4.3 Optimising the workload

Achieving efficiencies through e-learning enhanced hybrid learning requires forward thinking. Some suggest that time management be included in professional development for those embarking on e-learning (Lynch 2002; McNickle & Cameron 2003). A comprehensive report by Ragan and Terheggen (2003) considered workload strategies for the online environment. The strength of Ragan and Terheggen's work is that they have considered online teaching to include authoring and maintaining courses. They have also included the institution's role in supporting faculty. However, the usefulness of their suggestions depends on the context in which they are implemented. Ragan and Terheggen's suggestions are summarised below.

Authoring strategies

The following authoring strategies are suggested by Ragan and Terheggen (2003):

- Adopt a course development model (helps to coordinate presentation and technologies).
- Identify and acquire existing resources (reduces development time).
- Establish and distribute reusable templates (helps to streamline processes and assist with development).
- Provide the author with a sample online course.
- Provide specific instruction for assignments (reduces requests from students for clarification close to the due date).
- Apply project planning and management methods to course development (helps to reduce complexity by simplifying the process).
- Establish a course development team (reduces the academic workload by redistributing tasks to specialists).
- Design balanced instructional activities (encouraging peer review and collaboration enables efficiencies and social constructivism; prioritising activities in a course helps to reduce workload and focus student attention).
- Finalise one module or unit before developing the rest of the course (helps to streamline the design).
- Develop rubrics for each graded student assignment (rubrics streamline grading and help students to work more effectively).

- Create a learning object database. Learning objects are reusable items that can be used across multiple courses. The initial setup of such a system might take time, and it is likely that this approach would only work for large courses.

These suggestions lead to a tension between centralising and/or using templates, and innovation. We must find a balance between coordinating effort and consistency of design, and creativity. Nichols and Anderson's concept of *core and custom* is a useful system of coordination. Their terms are defined as follows (Nichols & Anderson 2005:6):

The 'core' is the normative set of e-learning systems and practices put in place across a programme of study, that is, it consists of those e-learning tools and approaches that are expected to be characteristic of all courses. The 'custom' is the flexible element of e-learning use that can be course-specific, which is applied in addition to the core. The core is incomplete without the custom. The core is the essence of strategic e-learning implementation, but it is seriously limited without custom additions that are more course-specific.

The advantage of a core and custom approach is that it encourages consistency (through the core) but not uniformity (because of the flexibility afforded by the custom). If all courses use a similar approach, efficiencies can be realised.

Teaching strategies

Ragan and Terheggen (2003) offer the following:

- Clarify and enhance students' technical skills before registration (reduces the need to focus on issues once the course has started).
- Provide a detailed syllabus or course outline (makes course expectations clear and provides a central point of reference).
- Define the operating parameters of the course (makes student and faculty responsibilities transparent).
- Create feedback rubrics (enhances consistency of feedback and saves time when providing feedback; rubrics might include administrative, academic and assessment feedback offered during the course, and can be customised for individual students as required).
- Establish a routine (helps to manage workload and builds student confidence in the faculty).
- Use an LMS (centralises administrative functions).
- Foster group dynamics (takes time initially, but will pay off later in the course as students learn to collaborate and rely on one another).
- Begin the course with an activity that encourages interaction (helps boost student confidence in the online environment and generates a sense of community).
- Establish consistent, effective methods of electronic communication by using posting areas and discussion forums for class announcements and frequently asked questions (reduces redundant communications).

Establishing a routine is a straightforward yet powerful strategy that helps to ensure that online faculty stay on top of their e-learning responsibilities. Many of these strategies rely on effective design of online discussion areas (see E-Primer 4, *Online Discourse*).

Course improvement and revision strategies

Ragan and Terheggen (2003) suggest the following. To be effective, these strategies should be implemented or planned before the course is offered to students.

- Conduct multiple evaluations of your course (invests time in the short term for the long-term benefit of smoother and more manageable revision).
- Conduct a pilot run or an expert external review (helps to identify potential problems before students are exposed to them; reduces the need to manage emergencies later on).
- Manage the revision cycle as an integral part of the course, building in time and budgetary projections.
- Develop methods for managing dynamic course elements such as references to textbook pages and web links. This might be done by placing all web links on a particular page, or referring to headings or sections instead of page numbers.
- Invite student feedback at the end of the course, and carefully consider the issues students raise. This may lead to items for a Frequently Asked Questions area.
- Develop and maintain a course history (helps the revision process and will help you to reuse previous discussion items).
- Involve the original course author in the revision process, as they are already very familiar with the content.
- Reward students for reporting errors in the course.

Institutional strategies

Palmieri (2003) points out that academics sometimes spend considerable time working around out-of-date policies and practices to practice effective e-learning. The following suggestions by Ragan and Terheggen (2003) aim to eliminate the need for such activity by aligning institutional systems with e-learning:

- Ensure faculty access to instructional design and systems support (makes better use of institutional resources).
- Provide adequate faculty development opportunities – a critical component of success in e-learning.
- Provide technical support for faculty and students. Ragan and Terheggen (2003:34) remark that 'Faculty workload is best applied to course content, rather than technological skills related to course content'.
- Provide an adequate LMS. While largely taken for granted these days, an LMS has the advantages of being a single user interface and enabling central administration and support.
- Establish institutional parameters for online operation (helps to manage and reduce administration tasks).
- Integrate institutional administrative systems and tools such as registration and grades reporting.
- Provide clear institutional policies on intellectual property (eliminates confusion and misunderstanding between faculty and the institution).
- Define the role of online education in the mission of the institution (removes barriers of confusion and 'unit(es) otherwise disparate units and departments [ibid:36]).
- Develop an institutional policy for compensating and rewarding faculty and academic units.

- Provide copyright and permissions support and policies (helps to streamline course production and improve compliance).

Clearly, most of Ragan and Terheggen's (2003) suggestions require a significant level of strategic activity and operational coordination within the institution and its programme groups. This level of coordination has led to the success of e-learning in the examples cited by Twigg (2003). It is likely that lack of coordination in these areas is at least partly to blame for e-learning having a mixed track record in improving the effectiveness and efficiency of education (see also E-Primer 1, *E Learning in Context*).

2.5 Quality in e-learning

Quality includes technical standards and support, professional development, and policy issues. There are a number of different quality guidelines and standards for e-learning, all of which address the role of faculty to some extent. Here, for the sake of brevity, we'll look at just two that are significant for New Zealand faculties: that proposed by the Association of Staff in Tertiary Education (ASTE 2004) and the e-Learning Guidelines (eLG) for New Zealand tertiary institutions, produced as an e-Learning Collaborative Development Fund (eCDF) project (Milne and Dimock 2005). The latter draws together some of the substantial literature on e-learning quality standards and provides a good local focus.

It is important to differentiate between 'fitness for purpose' and 'best practice' when considering quality. 'Fitness for purpose' consists of quality criteria that set a minimum standard. 'Best practice', on the other hand, is an ideal usually in excess of fitness for purpose. Typically, quality criteria are based on a fitness for purpose ideology and so do not necessarily assist with improving practice.

Developing additional quality criteria is not fundamental to successful implementation of e-learning (see, for example, Nichols 2007 in press); however, by considering the issues of quality, you ensure that important aspects of implementation are also considered.

2.5.1 ASTE e-education standards

In a 2004 conference, the Association of Staff in Tertiary Education proposed standards for 'e-education' (ASTE 2004). The Association drafted 15 standards, ranging from 'effective management must support e-educators' (Standard 1) to 'institutions must provide e-learners with high quality learning environments and appropriate support' (Standard 15). The Association has also developed a series of standards and indicators for release time for e-education that is related to professional development, calculation of staff workload staffing ratios, provision of professional development, and development of e-education related policies and procedures.

Most of the ASTE standards aim to ensure that e-learning activity is recognised and supported by a range of institutions. They are therefore very broad.

2.5.2 E-learning guidelines

The New Zealand e-learning guidelines (NZelg), which were developed to enable tertiary institutions 'monitor and improve e-learning practice' (Milne & Dimock 2005:11), are an outcome of eCDF (see E-Primer 1, *E-Learning in Context*). The guidelines are based on a literature review and input from representatives within the

New Zealand tertiary sector and provide a very useful framework for e-learning implementation.

There are nine guidelines in NZelg, three each for teaching staff, managers and students (Milne & Dimock 2005). Each guideline is divided into categories based on six principles drawn from Ministry of Education documents (E-Learning Advisory Group 2002; Ministry of Education 2004). The guidelines are available from <http://elg.massey.ac.nz>. The NZelg assume that instructional design and online interaction with students are important roles for faculty.

2.6 Summary – e-education and faculty

It seems that, in hybrid learning, the fundamentals of teaching and learning and the actual tasks of faculty are the same as those in traditional teaching. However, the emphasis on particular tasks differs in hybrid learning – course design and maintenance and student communications become more important. Rather than changing the skills faculty need, hybrid learning requires faculty to:

1. consider the educational opportunities afforded by e-learning media
2. be open to improving rapport with their students
3. develop and maintain a degree of technical practice.

Successful instruction in the online environment is all about balance, time management, and careful course design. Online faculty must balance a variety of important tasks. They maintain the critical role of subject expert, but add to this the roles of supporter, guide, and enabler. One major role in effective hybrid learning is that of providing feedback.

Of course, additional expectations have the potential to balloon workloads. While the literature comes to mixed conclusions about whether or not online learning increases workload, faculty can adopt some very concrete practices to optimise their time. There are established practices for course design, teaching, course improvement and revision, and for the institutional context. And the quality standards and guidelines that have been produced for e-learning provide a broad safety net for faculty roles.

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