Chapter 2

The five-stage framework and e-tivities

For online learning to be successful and happy, participants need to be supported through a structured developmental process. This chapter offers a description of my five-stage model, which can provide a 'scaffold' for a structured and paced programme of e-tivities. 'Scaffolding' means gradually building on participants' previous experience. A structured learning scaffold offers essential support and development to participants at each stage as they build up expertise in learning online. Each stage requires e-tivities of a different nature, as I will outline. First, I will explain the basis of the five-stage model.

Figure 2.1 demonstrates the model of teaching and learning online, researched and developed from scratch based on the experience of early participants in computer-mediated conferencing but subsequently applied to corporate training and across many learning disciplines and for different levels of education and contexts. See chapter 2 of my previous book, *E-moderating,* for more details of the original research into the model (Salmon, 2000a).

In summary, the five-stage model provides an example of how participants can benefit from increasing skill and comfort in working, networking and learning online, and what e-moderators need to do at each stage to help them to achieve this success. The model shows how to motivate online participants, to build learning through appropriate e-tivities and to pace e-learners through programmes of training and development.
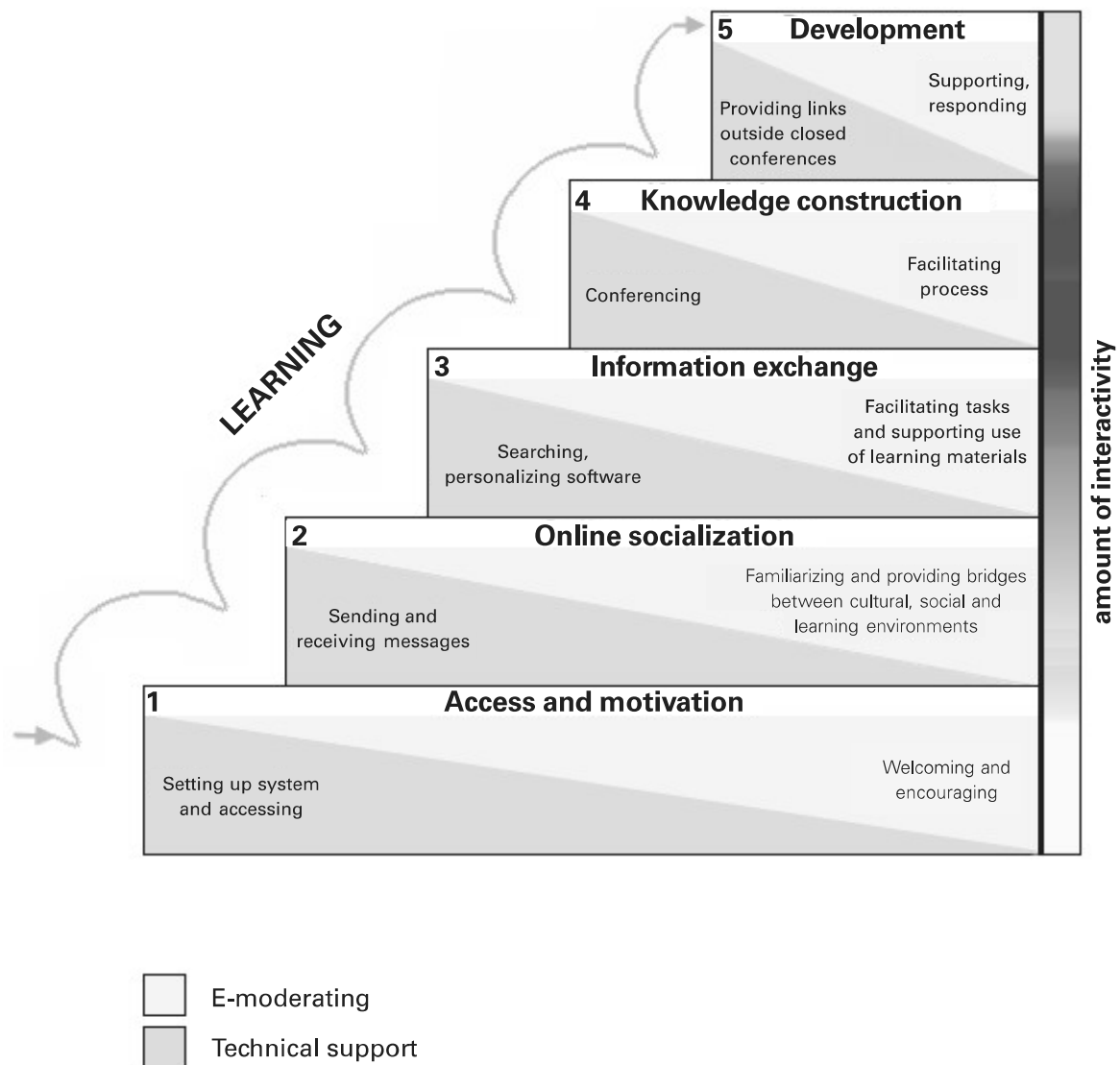
Figure 2.1 *Model of teaching and learning online through online networking*

Individual access and the induction of participants into online learning are essential prerequisites for online conference participation (stage 1, at the base of the flights of steps). Stage 2 involves individual participants establishing their online identities and then finding others with whom to interact. At stage 3, participants engage in mutual exchange of information. Up to and including stage 3, a form of co-operation occurs whereby each person supports the other participants' goals. At stage 4, course-related group discussions develop and the interaction becomes more collaborative. At stage 5, participants look for more benefits from the system to help them achieve personal goals and reflect on the learning processes.

Each stage requires participants to master certain technical skills (shown in the bottom left of each step). Each stage calls for different e-moderating skills (shown on the right top of each step). The 'interactivity bar' running along the right of the flight of steps suggests the intensity of interactivity that you can

expect between the participants at each stage. At first, at stage 1, they interact only with one or two others. After stage 2, the numbers of others with whom they interact, and the frequency, gradually increases, although stage 5 often results in a return to more individual pursuits.

Given technical support, good human intervention from an e-moderator, and appropriate e-tivities to promote action and interaction, nearly *all* participants will progress through these stages of use of asynchronous networking opportunities. Stages 3–5 are the more productive and constructive stages for learning and developmental purposes. However, they will work better if participants have taken part in stage 1 and 2 type e-tivities first.

Participants will differ in the amount of time each will need at every stage before progressing. For example, the model applies to all online learning software, but if experienced participants are introduced to online learning platforms that are new to them, they will tend to linger for a while at stages 1 or 2 but then move on quite rapidly through the stages. People are likely to cycle through the model many times as they increase their knowledge and explore knowledge in different domains. More experienced participants will move more rapidly towards stages 4 and 5.

A benefit of using the model to design development processes and build a programme of e-tivities for online learning is that you will know how individuals are likely to exploit the system at each stage and you can thus avoid common pitfalls. The results should be active online learning, good contributions, interaction between participants and increased student satisfaction. E-moderators who understand the model and apply it should enjoy their work more, and spend less time trying to recruit recalcitrant participants and more time designing and running creative e-tivities.

Let me now go into more detail about the stages of the model.

Stage 1: Access and motivation

For e-moderators and participants alike, being able to gain access quickly and easily to your online system is one key issue at stage 1. The other is being motivated to spend time and effort and to keep on returning to take part. There is a complex interplay between the participants' technical access and skills and the motivation to be active online.

E-moderators should not be complacent about entry level skills to online learning. There are still many novices 'out there'. However, what really matters here is acquiring the *emotional and social* capacity to learn with others online. Technical skills can be acquired and disposed of as needs be. Feelings about being unable to take part successfully are more significant than precise technical skills.
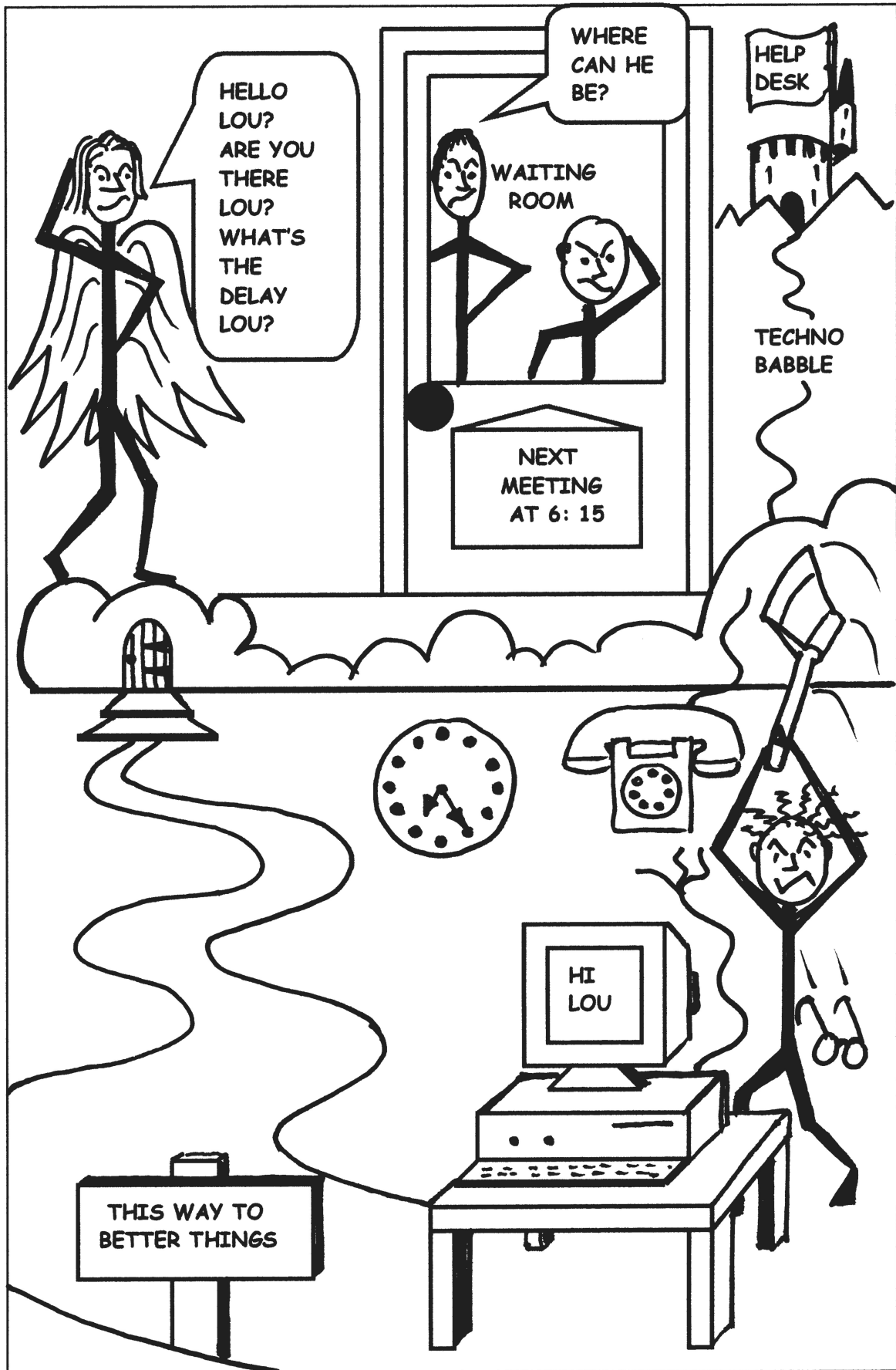
Lou at stage 1. Our new online learner, Lou, is experiencing considerable frustration as he tries to log on and take part in his online forum

Access

Let us consider the issue of access to the system first. At this first stage the participants need good, regular access to the online environment, and sufficient knowledge to find the most important parts of it on screen. If they are to be mobilized in their online learning, then they need to know how to actively *take part* and not just to be able to find and read the screen content.

At stage 1 the computer skills of participants and staff will vary enormously. In my view there is little point in doing skills surveys and the like before you start. It's really hard to predict the emotional responses to a piece of technology and how an individual will choose to use it. It is also too simplistic to suggest that we can predict an individual's need and his or her likely use of a particular technology based on indicators such as age or gender.

The efforts of software and system builders to make the use of networked technologies easier create the illusion that technological systems should 'just work!'. We become perplexed when a piece of technology does not behave in the way we expect. Hence most people notice the complexity of the technology only when it goes wrong. At stage 1, most people will not have the under-standing to know what part of the system is failing to respond in the way that they expect, nor, in all likelihood, will they have the patience or time to find out. Most people will blame the system, the hardware or the IT people. Some will assume they themselves are incompetent. Participants can become very upset and angry. Handling these feelings and their consequences and continuing to encourage participants to log on is an ongoing challenge for e-moderators and technical support people alike.

Many people will be unfamiliar with the software tools you choose to use. It is important to show participants how to use the software but this needs to be achieved whilst they *are taking part in online e-tivities* that are interesting and relevant to them. It is not a good idea to offer face-to-face sessions to try to instruct new participants in all the features of the platform and then to expect them to be able to take part successfully. Your IT support people will otherwise spend many hours providing assistance, and some people will still fall by the wayside. Participants will also spread the myth that e-learning 'doesn't work'!

E-tivities at this stage therefore need to provide a gentle but interesting introduction to using the technological platform and acknowledgement of the feelings surrounding using technology. Access takes many forms. This participant acknowledges that various forms of help that enabled him to start and encourages him to return:

Dear All. . . my reflections on stage 1. I am really impressed by the technology, having lived on the weak side of the digital divide until four months ago in Africa. The warm welcome was really encouraging: I don't take sugar, but I don't think it was too sugary! It was a good balance between encouragement and 'work': carrot and stick comes to mind! Next, the openness and easy style of 'talking' online has been refreshing. Last, but not least, I am left uncomfortable at my intermittent presence caused by other commitments during this first week – I expect to be better organized after the next week. However, I have learnt already the value of asynchronous discussion. I have been able to follow the conference and its conversations even after extended absence. I may become less reactive in the near future! SD

Motivation

Motivation is an essential element helping participants through the early stages of use of the hardware and software systems and towards engagement and mobilization of learning. It is very important never to assume that the 'joys' of the software and the systems themselves will provide any kind of motivation. Once the technical aspects of taking part online have been overcome, participants will derive some satisfaction from being able to use the software. However, using the software will always remain a 'hygiene' factor – important but not sufficient in itself to create motivation.

Novices tell me:

You need to entice me. What's the added value of my doing this?' BC

I was surprised how difficult it was to send my first message to the conference. Although I consider myself fairly computer literate, I was very scared! What must it be like for people who don't like computers. . . yikes!? However, once you are over the initial hurdle things get much better JL

Using a business acronym, it's all about the WIIFM factor (what's in it for me) MB

I am surprised at how nervous I am in the conference room if I don't recognize any names. I tend to duck out again! JC

This message appeared in a reflections area at stage 1 of a trainee e-moderators' course. It shows that feelings can easily be offended through Netspeak too:

> PS If Carlos reads this, I see in one of your notes you mentioned being accused of being sarcastic. When I look back on this now, it did seem like I'd done this – why didn't you e-mail me to tell me I'd got it wrong? A useful learning point for me about being careful of interpreting intent and then committing it to a message. Sorry, Carlos! BC.

At stage 1, e-moderators should first focus on building e-tivities that enable participants to become involved and contribute and start to develop skills for themselves. Stage 1 e-tivities should directly enable participants to increase their comfort with the use of the technology in an integrated and worthwhile way for them. We have found this more successful than attempting to teach online learning skills or use of a particular platform on their own. Then e-moderators can carry on to provide pathways for the rest of the interactive learning process.

The key is to mobilize participants' understanding about why they are learning, why in this way, as well as what they have to do to take part. Even the most apparently confident individuals need support at the beginning. Later, you need to give constant feedback on how their learning is progressing and suggest what changes they need to make. 'Motivators' should be integrally involved in your e-tivities as part of both the process and the experience. Motivation is not something that you can set out to create on its own.

As an aside, it's clear that negatives along the lines of 'bad dog – no biscuit' are not successful! Nor is it useful to assume that awarding marks for contribution will be enough. Furthermore, it is just *so easy* to demotivate e-learners at this stage as many may believe that they have to get over the hurdle of setting up the computer, of 'meeting' with classmates and exposing their own ignorance. An uninteresting e-tivity or a chance unfortunate remark can be a strong demotivator. For example, a participant who is herself confident and competent in her everyday teaching said:

> When things didn't work as I expected during my first few days in this programme, I became very annoyed, mainly with myself, but also with the software and those who had suggested that I try this experience. The feelings were so strong that they reminded me of when I brought my first baby home from hospital. I had been more than competent previously in teaching and managing a class of 33 six-year-olds. But I couldn't cope with

one small baby. And suddenly, online, the feelings of being out of control occurred again! Fortunately, three weeks later the feelings are a distant memory, thanks to the technical support and reassurance I've had, but most of all the astonishment of meeting with others online who understand! PS

There are many different ways to promote motivation. You will need to decide clearly how many you can incorporate into your e-tivities at this early stage! One way to consider motivation at stage 1 is in terms of expectancy theory (Feather, 1982; Biggs, 1999b). This theory says that the learning activity must have value to the learner and that the learner must expect to succeed. So clarity of purpose from e-tivity designers and e-moderators is critical from the very beginning. To demonstrate value at stage 1, make it very clear to participants the purpose of your programmes of e-tivities (for them) or how stage 1 links to and integrates with the rest of the learning or networking process, its role in assessed components (tests and assignments) and the amount of time they should allocate to working on it. It is important to clarify the purpose of each e-tivity at the beginning of each invitational message.

It is a great mistake to assume that any participant will want to dedicate hours and hours to online conferences without good reason. Demonstrating how to succeed is harder than it sounds. In different learning and teaching cultures, in different disciplines and at different levels, the meaning of success may vary. So when designing an e-tivity it is important to specify the purpose clearly *and* make it achievable. At stage 1, even simple e-tivities may need a considerable amount of time and support to work well.

Some participants look ahead to the forthcoming e-tivities and consider their workload (they are the exception!):

The only hard aspect in this programme is the very high number of e-tivities! :-). I have had a look at other sections and. . . every week we will have 7/8 e-tivities! Is this not too hard for people who work all day and have limited time to dedicate to the course? Should I do them all lightly or some in depth? I can't yet decide. Still, you're all here with me (I think). . . BT

This native Swedish speaker, working online in English, expressed how she felt after a week of taking part in an international group:

It's given me a thrill to belong to a group of people from so many countries. A good thing was also the e-convenor's comforting e-mail when I had technical problems and so was late to log in. It was quite stressful to try to catch up with all the activities but I'm glad they weren't difficult questions. I've used all my energy just to get familiar with the software. (I've been very sympathetic with my own students this week when they haven't done what they should.) What surprises me more is that I get so frustrated when using English. There are no problems to understand or make myself understood (I hope) but it's just not me, not my person. I can't make jokes and I can't find the exact words. This is a useful reminder as I've got many students whose first language isn't Swedish. But I'm looking forward to the next session. JG

Some people best respond to 'achievement' motivation. They need tasks that they can reasonably easily achieve – ones that are neither too hard nor too easy (McClelland, 1985). Others will need 'competence' motivation. This refers to participants' belief in their ability to achieve, what (to them) may seem a difficult task. At stage 1, e-tivities need to be easier than at stage 2, stage 2 e-tivities less challenging than stage 3, and so on. This means that the more difficult and demanding e-tivities should be introduced from stages 3 and 4 onwards, and even then gradually.

I feel that to learn this e-learning game one has to approach it somewhat playfully. . . being willing to experiment and make mistakes. . . and not to take oneself too seriously either (imagine a perfectionist like me saying this). This is a real challenge and achievement for me! QH

Expectancy theory suggests two main ways of promoting motivation: 'extrinsic' and 'intrinsic' motivation. Extrinsic motivation includes positive reinforcement and reward (eg a financial incentive) or negative reinforcement (such as punishment). In extrinsic motivation the student focuses on the outcome. With increasing importance being placed on outcomes in learning, especially e-learning, clarity of extrinsic motivators is critically important.

A second kind of expectancy-based motivation is intrinsic. Here the participants learn because they are happy to take part in the activity for its own sake. 'The point is to travel rather than to arrive' (Biggs, 1999a: 60). It is unlikely that most participants other than very experienced e-learners will exhibit high levels

of intrinsic motivation with any frequency at stage 1. However, you will observe intrinsic motivators operating successfully at stages 3–5.

Another potential motivator is 'social'. Essentially, participants 'learn to please people whose opinions are important to them' (Biggs, 1999a: 59). Typical examples may be parents, the boss or the e-moderator! This kind of focusing leads to students 'picking out' messages of those people who are important to them online, especially if there are many messages. We noticed this effect in the online course described in Chapter 3, when some people (especially at stages 1 and 2) read my messages before those of the official e-convenors! At stage 1 we think this is a natural effect. Carefully handled, this can be a form of 'modelling', where we copy or adopt the characteristics of good 'role models'. Hence the e-moderator must be an excellent communicator at this stage. That said, in online learning it is important that participants gradually learn to model against other than the e-moderator, but more about that at stage 2.

> At first I was a little irritated that our e-convenor didn't directly answer my question about the structure of e-tivities at stage 1 – though she continued to log on. I thought I had been ignored! Then I started to see the way she collected up five different people's messages in a summary. Of course I 'leapt' on this message as soon as I logged on. I was amazed at how she did it. It even included a question to me on whether I could use these ideas. Well I never! PS

Resources for Practitioners 3 offers a summary of advice on motivation.

Arriving

Allow plenty of time for this stage. Participants simply *will not* all log in on the day and at the time that you plan! A few will come a little early and may race ahead. Some will come late. Allow at least a week for everyone to log on, get started and complete the first few e-tivities. You will know this stage is over when the majority of your expected participants are online and the rest are giving 'life got in the way', rather than 'the technology doesn't work' type of excuses. In addition, those who are online will be showing some proficiency, at least in finding where to interact, and in posting messages that go beyond 'Help, where am I?' and 'Why am I here?'

It is very worthwhile trying to get all participants online and frequently visiting before moving on to stage 2. We find that it is very hard for participants to catch up successfully after that time.

Stage 2: Online socialization

At stage 2, you are doing nothing less than creating your own micro-community through active and interactive e-tivities. Whether the community will last a few weeks or a few years, it is a very special learning and teaching opportunity.

In a sense, you create a special little cultural experience *belonging* to *this group* at *this time.* Robin Goodfellow and colleagues call this a virtual 'third culture' (Goodfellow *et al*, 2001). Many participants are very excited at the potential of sharing in the thoughts, experience and work of others but find that it is hard to start. E-tivities help with entry to the third culture.

One participant reported:

> The conference I was involved with before this failed because there was not sufficient common ground between the people, all registered on a doctorate of education programme, to sustain a discussion. Everyone was following their own particular interests. Not everyone participated and postings were sporadic. Some people suggested that we should have all met up, but I don't think this would have helped, in itself. JS

At stage 2 we need to promote webs of trust that do *not* depend on physically meeting. Establishing strong norms based on trust in each other is critically important for the success of later learning in groups and teams (Rossen, 2001). The lack of face-to-face and visual clues in online participation is a key ingredient of success rather than a barrier. If the remoteness and lack of visual clues are handled appropriately they can increase the comfort level of e-moderators and participants alike. Therefore I do not consider that (interactive) e-learning is deficient for teaching and learning. Instead it brings its own special advantages and disadvantages compared to face-to-face working. For example, where comparisons have been made between face-to face and online learning, 'the professors have indicated that they know the distance-learning students better than their counterparts in the physical classroom' (Mills, 2000: 131). So we have an excellent opportunity here to offer real opportunities for cross-cultural working of all kinds, and to understand our students better.

Here is a little illustrative interchange between participants at stage 2. Note the use of questions.

Stage 2. Here we can see Lou setting off in a journey of faith, carrying some baggage. The e-moderator is building the bridges for all the participants

> Another fascination: why can I self-disclose so much to a list of names on my screen? DC
>
> Is that another good question for your PhD work? A hint. . . we are 'a list of names' that can speak and listen in a personal and creative way with each other. And we do, don't we? QH

So, to work together really productively at the later stages, participants need not only to get to know each other's *online* persona and approaches but also to understand each other's intentions, hopes and even dreams. The role of carefully chosen e-tivities at stage 2 is to build bridges between the hopes and the achievement.

> I find the medium very compelling; it is like having a host of new-found friends that one can talk to at any time and who are remarkably interesting and open. The problem is in disciplining oneself to check on a daily basis, which currently I am finding very difficult to achieve. JS

When designing effective e-tivities for stage 2, it helps to consider what it means to enter a new and fresh world with people from a wide variety of backgrounds and perhaps cultures and countries. When asynchronous computer-based learning first started, there was a belief that there would be a strong discontinuity between people's location-based physical selves and their online or virtual personae. However, e-moderators using computer mediation for teaching and learning soon came to realize that online learning groups often can develop their own strong online identity.

I find the ideas of a community of practice are helpful in this context. Wenger tells us that there are three main components of a community of practice: joint enterprise, mutuality and shared repertoire. Joint enterprise means that, at stage 2, you need to help your participants understand the value of working together online and enable them to get to know how they might do this – in particular, how they might each contribute to group working. Mutuality means that the participants get to know each other and gradually come to trust each other. Many people believe this is harder to do online than face to face. However, writing online often involves in-depth sharing of ideas and support. Developing a shared repertoire includes exploring 'language, routines, sensibilities, artefacts, tools, stories, styles' (Wenger, 2000: 229). E-tivities at this stage thus need to directly offer opportunities to share and develop a repertoire for the group. No technology, however sophisticated, will create such a culture. At best it will enable

it to foster and grow, once established. Sensitive and appropriate e-tivities and the e-moderator's interventions cause the socialization.

Bear in mind that participants will almost certainly be involved in a variety of communities of learning and practice at the same time. Some of these may be similar in values and beliefs and norms of behaviour to those of your own groups and some may not. Therefore, the e-moderator's responsibility at this stage is to ensure that a compatible and achieving community is built for the purpose that is intended. This is truly a process of socialization, and can leave out those on the margins of understanding, unless e-tivities explicitly ensure inclusion (Lauzon, 2000).

Many of you will e-moderate internationally, or at least across more than one culture. Many others will meet across learning disciplines that are themselves strong and influential cultures in their own right. Others will work across professional divides in 'virtual teams' around a common purpose. The combinations are many and inevitable. To promote groups and achieve much more collaborative learning later on, e-tivities that are explicitly about exploring cultural knowledge are very valuable at this stage, particularly those that explain differences. We have found that e-tivities along these lines – especially those that also give increasing comfort in using the software as well are more useful than trying to teach 'study skills' as such.

See Resources for Practitioners 9 for more about groups.

I think that one of the most important lessons about cross-cultural interaction is that tolerance and effectiveness emerge from greater understanding of multiple perspectives and points of view (Osland and Bird, 2000). So e-tivities at this stage need to concentrate on surfacing and exploring viewpoints. After views and plans are offered, the group can examine them. Where differences are small, agreement can be assumed but there can be little learning unless differences are surfaced and discussed. New understandings arise from exploring different perspectives – although a shared framework of understanding is necessary for this to occur (Tolmie and Boyle, 2000). If differences are too great, the e-tivity is unlikely to get off the ground. So what you're aiming to achieve here is to expose differences enough to result in the creation of new understandings, but within a shared framework of activity so participants are neither under-stimulated nor overwhelmed at any one time.

Both participants and e-moderators should be aware at this stage that their characterizations of other cultures are 'best guesses' (Osland and Bird, 2000). Exploring cultural differences and alternative understandings at this stage is usually undertaken with good humour, though sometimes people can be upset. What you are looking for here is recognition that each individual or group has something unique and special to offer (Goodfellow *et al*, 2001). Later, at stage 4, more of a 'peeling away' of layers can be encouraged.

At stage 2 there are special opportunities to raise awareness of gender and race issues, potential personality conflicts and especially different educational values and expectations. Clearly, this is a major task and not something that can be glossed over in one or two 'introduce yourself here' messages. You can see some examples in Chapter 3 and in Resources for Practitioners 5.

How do you start to know when stage 2 has been achieved? This second stage is over when participants start to share themselves online and the basis for future information exchange and knowledge construction has been laid down. Essentially you are looking for the majority of members to have some understanding about the group or community's ability to work together online and how they might contribute to learning and development through this medium. They should be interacting with each other and some trust should be starting to build up. They should be sharing stories and ideas and exploring styles and ways of working.

E-moderators should ensure that the social side of conferencing continues to be available for those who want it. Usually this is done by provision of a 'bar' or 'café' area and through special interest conferences. An Oxford Brookes University large-scale study tells us:

> It is important that 'leisure use' of Information and Communication Technology does not become seen as something to be eliminated in the interests of efficiency. In practice, personal and learning uses. . . are impossible to distinguish, and universities should recognise the value of blending the academic with the personal. (Breen *et al*, 2001: 113)

Stage 3: Information exchange

At this stage, information can be exchanged and co-operative tasks can be achieved. The big advantage of asynchronicity is that everyone can explore information at their own pace and react to it before hearing the views and interpretations of others.

Participants' learning requires two kinds of interaction: interaction with the course content and interaction with people, namely the e-moderator(s) and other participants. Whether on campus or in a distance learning programme, content is usually best sent to participants as well-designed and carefully prepared print material or by using videocassettes, CD ROMs and other pre-recorded media. Participants often find that references to course content, including links to online resources such as Web sites, provide useful motivation. However, it's best to resist the temptation to try to present every topic in the syllabus!
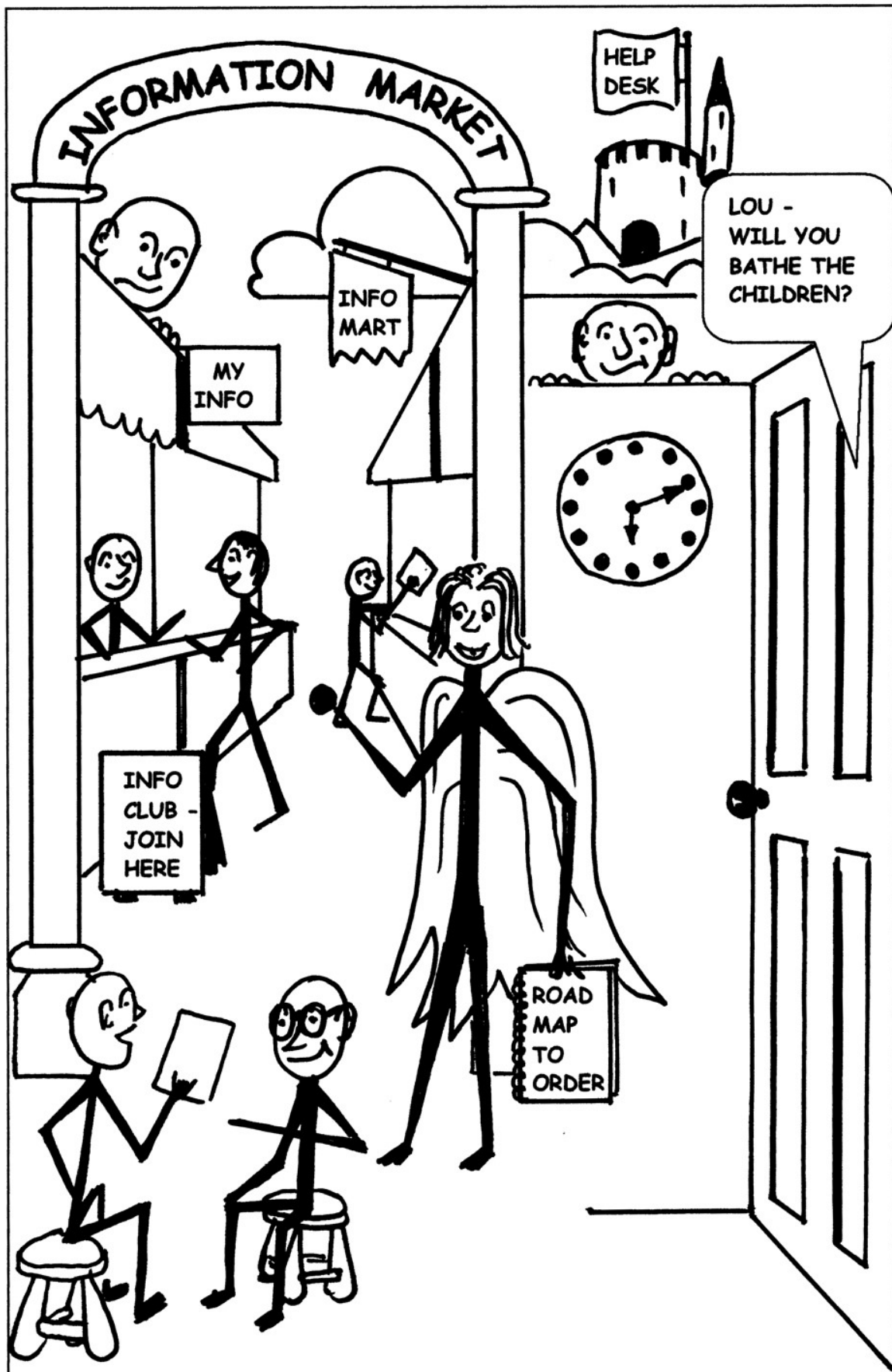
Stage 3. Lou is getting used to being online and has started to work with some colleagues

At this stage, participants need knowledge of tools for remote access to information and knowledge of strategies for purposeful information retrieval. However, information in e-tivities should be short and should be there to initiate action and interaction. We call this information the 'spark'. Even at stage 3, participants' efforts in finding and reading masses of information online will divert them from active and interactive learning. You will see from the examples in Chapters 3 and 4 that we use only one or two paragraphs of 'spark' information. You can increase 'coverage' if you need to after your participants have become adept at working online, on time and with each other, when they have arrived at stage 4. At this point, increased content can be added to the e-tivities, if you wish, without it diverting the group too much into reading and not interacting with each other.

At stage 3, participants look to the e-moderators to provide direction through the mass of messages and encouragement to start using the most relevant material. Demands for help can be considerable because the participants' seeking, searching and selection skills may still be low. There can be many queries about where to find one thing or another. Online e-tivities therefore need to be well structured and should always include regular summaries or plenaries. See Resources for Practitioners 29 and 30.

Coming to grips with the nature of asynchronicity can prove very demanding for conference and forum participants. All new online learners and e-moderators have some problems with it during their training (or if you allow them to work untrained directly with participants). There is no quick and easy way around this problem. They really do need to experience it for themselves. For instance, participants 'post' contributions to one conference then immediately read messages from others, or vice versa. A participant might read all his or her unread messages in several conferences and then post several responses and perhaps post some topics to start a new theme. In any conference, this reading and posting of messages by a number of individuals can make the sequencing difficult to follow.

All the messages are available for any participant (or researcher) to view online, so the sequencing of messages, when viewed after an e-tivity is completed, looks rather more ordered than during the build-up. Yet trying to understand them afterwards is rather like following the moves of a chess or bridge game after it is over. When participants start using e-tivities, this apparent confusion causes a wide range of responses. The twists of time and complexity can elicit quite uncomfortable, confused reactions from participants and severe anxiety in a few. Although many people are now familiar with email, they are not used to the complexity of online conferences, bulletin boards or forums. I suggest that good structure, pacing and clear expectations of participants should be provided, not only for the scaffolding process as a whole but for each e-tivity. In addition, the e-moderator, or his or her delegate, should summarize after 10 or 20 messages.

I realize that I should take full responsibility. I just didn't organize myself to interact more with other participants. (Help! I'm turning into a vicarious learner!) And indeed I have learnt that online learning requires me to be more structured than I had previously thought. RR

There is a paradox. If too many postings occur from participants without acknowledgement or summarizing by the e-moderator, 'lurking' (reading but not posting) develops quickly. It is really important that there is not too much to read or a participant feels that he or she is not part of the interaction. It is common for novice e-moderators to spend huge effort and time in trying to encourage contribution at stages 1 and 2, only to find themselves largely logging on to read their own messages. If e-moderators are too rigorous, they soon burn out! However, by stage 3, all participants should at least be able to access and read the e-tivities, and posting or contribute in some way to most of them.

At this third stage, e-moderators should ensure that e-tivities concentrate on discovering or exploring aspects of information known to participants, or reasonably easily retrieved by them. E-tivities that encourage the presenting and linking of data, analysis and ideas in interesting ways online will stimulate productive information sharing.

Here are some remarks on time from lecturers working through an online course to increase their e-moderating skills:

Working through this online course has made me realize that e-moderating is not something you can do in small parcels of time (the odd hour between 'real' classes). It needs more attention and thought than that! I need a new kind of discipline. ES

I have had my ups and downs with the course mostly because of the huge demands on my time (the ironing etc). It has definitely developed my e-moderating skills and knowledge. I have enjoyed meeting colleges online. The demanding workload of a lecturer and my intermittent insomnia often meant that I was one of the people who worked at weird hours (which seems to have upset some). I have learnt a lot from the experience of being an e-student. JW

My major confession is that I wish that I could have spent more time on the course e-tivities. Due to other teaching commitments it has meant that I have not been able to give it the time it deserved and, because I started

late, I continually felt as if I was playing catch up. It would have been nice to have been one of the leaders in an e-tivity rather than a follower for all of the time. AB

Finally, one thing that I have found 'interesting' throughout this course is the days and times when people log on and do some work! Does the weekend work/early and late times show just how dedicated we all are or how we are all trying to juggle yet another ball in the air! CH

The ideal approach seems to be, as I have discovered, to allocate blocks of time – at least 1 hour – to get into the medium. That kind of time is not always available. This is particularly the case for people like me who are busy running a business and may well be attempting to fit the course 'round the edges'. This means to me that things like size of the discussion group, treatment of late arrivals and/or 'lurkers', archiving, summarizing need to be dealt with very carefully. NB

One of the problem I've had is (and I'm going to try and sort it out this week) is that I log on to read the new messages and then come back later when I've thought of replies. By then everything has moved on. I guess this is driven by a fear. . . wanting to get 'the right answer' and having to spend time on a considered contribution. But I'm beginning to realize that it's the trying out of ideas that's important and that a supportive group is a good place to do that. MD

Stage 3 is over when participants learn how to find and exchange information productively and successfully through e-tivities, and the numbers of people lurking, browsing or 'vicariously learning' are minimal. As you notice that your participants start to challenge the basis of an e-tivity, wish to change it, suggest alternatives to the spark that you have provided, then you will know that they are ready for stage 4! Familiarity with the technology must be achieved by this stage – if not, then it will prove a distraction from the much more demanding e-tivities and relationships that develop at stage 4. Clearly, participants should also understand not only the general dynamics of group working but also how their particular group can operate successfully.

Stage 4: Knowledge construction

By stage 4, participants frequently start to recognize one of the key potentials of text-based asynchronous interaction and take control of their own knowledge construction in new ways.

I am studying in a kind of hypertext type, which means I get impulses from here or there. I follow maybe a branch, and then I get another trigger, usually from someone (rather than something) else online. I build up a network for myself, instead of following my studies in a linear course that somebody else has designed for me! GB

It is very clear to me that for an e-tivity to be motivating and of use, it needs to be both relevant to the course and the group in terms of the topic *and* it needs to be personally meaningful. Therefore I just can't do this e-tivity as it is suggested here! A way around this issue (after all, you can't please all the people all the time, right) seems to be allowing participants to renegotiate the content of an activity if they feel unhappy with it. (This is exactly what our e-convenors, Gilly and Val, have done with me.) And perhaps also giving a number of choices in terms of content for the same task from the outset. NB

Thinking is clearly the key to making information useful (McDermott, 1999). From this stage onwards, we can develop e-tivities that especially promote the process of actively thinking and interacting with others online. These skills include:

- *critical (analytical)* thinking including judging, evaluating, comparing and contrasting and assessing;
- *creative* – including discovering, inventing, imagining and hypothesizing;
- *practical* thinking including applying, using and practising. (Sternberg, 1999)

Learners build their own internal representations of knowledge, linking it directly to personal experience. This personal knowledge is constantly open to change. Each piece of newly constructed knowledge is actively built on previous knowledge (Lauzon, 2000). Where we seek to engender practical knowledge, we need to draw on e-tivities that enable participants not just to 'cut and paste' best practice from the past to the current situation but also to draw from their own experience. At stage 4, we see participants start to become online *authors*
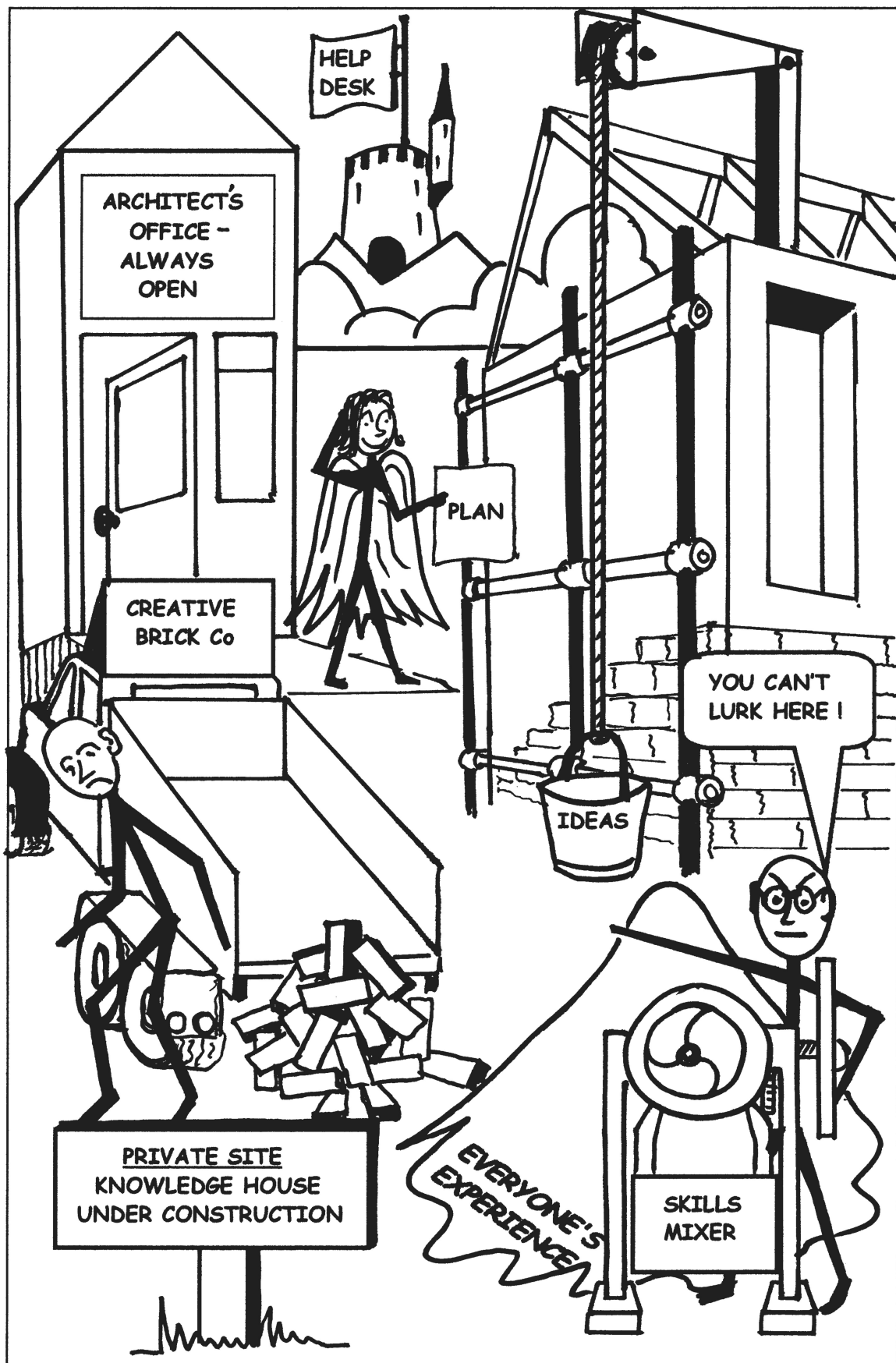
By stage 4 Lou's group is really constructing knowledge through online interaction, and successfully handling its own group dynamics

rather than transmitters of information. The development of tacit knowledge and its impact on practice can be very strong at this stage.

E-tivities at stage 4 can draw on these ideas. E-tivities at this stage will frequently have discussion or knowledge development aspects at their core. E-tivities can be based on knowledge that ultimately the participants need to structure for themselves. The challenge is to strike a balance between providing too much structure and too little. It's what the participant makes of the e-tivity that is important. E-tivities can be based on sparks or questions that have no obvious right or wrong answers. The e-tivities can offer knowledge building (rather than exchange of information) or a series of ideas or challenges. These issues are likely to be strategic, problem- or practice-based ones. E-tivities that encourage exploration and interpretation of wider issues will hone the skills of operating cross-culturally. E-tivities can start to introduce the idea that there may be multiple answers.

E-moderators have important roles to play at this stage. The best moderators demonstrate online the highest levels of skills related to building and sustaining groups. Feenberg (1989) coined the term 'weaving' to describe the flow of discussion and how it can be pulled together. Weaving together key points from e-tivity responses is a valuable role for the e-moderator, and for helpers or participants as they become more experienced. Everything that has been 'said' is available in the conference texts.

The best e-moderators also summarize from time to time, span wide-ranging views and provide new topics when discussions go off track. They stimulate fresh strands of thought, introduce new themes and suggest alternative approaches. The value of an online discussion can be very high so long as interest and focus last. But there is no need artificially to extend discussions and plenaries. E-moderators need e-tivity closing as well as opening skills! Chapter 3 explores these skills in more detail.

Participants respond differently to knowledge construction processes, and sensitive e-moderator support is important. Adding value to the online networking comes in various ways.

First, the contribution needs to be acknowledged and the contributor 'heard'.

Second, the contributions are available for others to read and they thus become a form of inventory. The e-moderator's role is to enable contributions to be surfaced and used by others. One person may need more time to explore issues, and another may reach conclusions quickly and may become impatient with those who are still thinking. It is important that the e-moderator avoids the temptation to discount experience expressed (or allow other participants to do so) in any way or to counter it and enter into argument. At the point of the ending plenary, the e-moderator can draw on the evidence that is presented to try to explore overall conclusions in the summary.

Third, the e-moderator should comment, at an appropriate moment, on the sufficiency of the data being presented and fourthly to the quality of the argument around it. These ways ensure that the experiences, whilst valued, are not necessarily considered complete on their own. And the e-moderator is thereby modelling ways of exploring and developing arguments.

The dilemma that many e-moderators put to me is when to correct misconceptions apparent from participants' messages. They wish to avoid to 'putting down' participants whilst not allowing incorrect statement to pass by without comment. The key is in summarizing effectively, providing commentary – and removing the original problem message tactfully if really necessary. And e-moderators themselves should always show a little doubt about their own answers and invite further comment. You can see an example in Resources for Practitioners 24.

The role of the e-moderator is, of course, a difficult one to negotiate successfully at this stage. Some trainee e-moderators want to do less:

> I see my future role as an e-moderator in knowledge construction as minimal. If the group are well established by stage 4, anyway. By that I think that the less activity on my part the better. That goes for online group processes, too; I guess that the rules are similar to working with groups face to face. Create a framework, structure, discuss rules (the 'hows'), set the ball rolling and stand back: less is more! DC

Most participants, however, value some structure to diverse knowledge building e-tivities:

> It is really interesting following the different threads that developed in this session. When I read about knowledge construction I thought of it as a mono-construction with a single focus. I felt frustrated that we had so many e-tivities to complete that split our attention but it is by multitasking through the discussions that we have constructed knowledge. Penelope first alerted me to this when she questioned the purpose of the Titanic e-tivity. Then we designed an e-tivity, discussed creative writing, brainstormed questions, replied to another posting and completed a summary. At the same time, we have experienced some of the different ways of online learning. CI

This stage can be considered completed by a joint outcome produced or an independent collaborative e-tivity in evidence. Once you've got participants to this stage, they will have their own sense of time and place and momentum. Another clue is that they can comfortably and supportively challenge and build on each other's contributions. They may be able to move up and down the stages with some ease.

Stage 5: Development

At stage 5, participants can become responsible for their own learning and that of their group. They will start to wish to build on the ideas acquired through the e-tivities and apply them to their individual contexts. At stage 5 the view of online learning can be impressive. By now, both participants and e-moderators will have stopped wondering how they can use online participation and instead become committed and creative.

Frequently, they also become critical and truly self-reflective. It is also at this stage that participants find ways of producing and dealing with humour and the more emotional aspects of writing and interacting. Experienced participants often become most helpful as guides to newcomers to the system.

Metacognitive skills refer to people's understanding and control of their own thinking. If you have engaged your participants carefully and fully at each of the previous four stages, you will be rewarded by explicit evidence of metacognition by stage 5 and be able to promote their skills by developing very challenging e-tivities. Metacognitive *learning* skills focus on what the learners do in new contexts or how they might apply concepts and ideas. These skills can be developed more easily at stage 5, and e-tivities to address them, such as development plans, are valuable.

There is also a crucial role for e-tivities at stage 5 for promoting and enhancing reflection and maximizing the value of the online learning for each participant (Williams *et al*, 2001) and for the group learning experience (Salmon, 2002b).

Moon offers us a useful simple definition of understanding the links between reflection and learning:

> Reflection is a form of mental processing – like a form of thinking – that we use to fulfil a purpose or to achieve some anticipated outcome. It is applied to relatively complicated or unstructured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding and possibly emotions that we already possess. (Moon, 2002: 2)

At stage 5 Lou is confidently setting off towards both assessment and his next course!

In e-tivities you can use the idea of asking participants first of all to recall a familiar experience as a preparation for introducing them to a new one. The idea here is that in attempting to understand a problem or explore a scenario, experiences need to be interrogated and perhaps tested and challenged to avoid the unconscious assumptions that may reduce creativity and flexibility. A key aspect of learning through reflective processes is that each adult learner will have a different ways of dealing with ideas, using perhaps their well-established learning styles.

The results of online e-tivities are available for revisiting and reconsidering in a way that cannot happen with more transient verbal conversation. It is possible to 'rewind' a conversation, to pick out threads and make very direct links between different messages. Emotions can often be spotted, surfaced and expressed that may be passed over in face-to-face situations.

All the e-tivities should indicate why you expect your participants to reflect. I suggest you pose a 'point of learning' reflective question at key times, and also ask participants to look back through the course on a regular basis. Also, suggest at regular intervals that they revisit their own and other people's responses frequently.

Unlike some, I enjoyed the early stages. Finding out so much about each other helped me feel even more the importance of online socialization. Going back now over the e-tivities that we took part in made me realize how much we came to know each other and how much more productive we were later as a result. It came home to me when AB attended the final validation event and I felt he was an old friend (that is not an ageist remark!). Before our online communications this would not have been the case. NJ

I've followed the course all the way through and have learnt far more that I had expected. It's looking back over the five-stage scaffold that has helped me to appreciate and differentiate between the different levels of confidence and expertise of the e-students, and the difference between offering 'content' and my growing really virtual expertise! YE

I have enjoyed this week very much. I really want to say thanks to all of you who encouraged me to do the reflective journal thing instead of continuing to work through the structured e-tivities. It was good to change pace. NH.

> I learnt so much from this group reflection e-tivity. Once or twice it was like being at a mini-roundabout where no one knows whose turn it is and that was OK too. It makes you take more care. HT

Participants learn something new both about themselves and about learning online.

> I also noticed that I was replaying a pattern of mine. I had a bad time with the software, and sent the e-convenor a Very Nasty E-mail. The next day I felt better and apologized – and was annoyed that I was rerunning an old pattern (scream and shout, then repair the damage). Still, now that I know that, I shan't leap to my keyboard to write Nasty Letters so soon in the future: an advantage of e-mails is sleeping on things before clicking on send! DC
>
> Me? I learnt with startling clarity how I stand in my own way, and that I can make it right again. I learnt again how important it is for me to have a large amount of freedom in my learning, and so I think that this is one good method for me. I learnt that I can learn differently. AS

The chief benefit of using the model to design a course with e-tivities is that you know how participants are likely to exploit the system at each stage and you can avoid common pitfalls. If you want to encourage participants to move up through the stages, use careful pacing and timing. See Resources for Practitioners 5, 6 and 13–19. E-moderators also need online training beforehand to develop their skills. See Resources for Practitioners 28.

Chapter 3 provides you with a worked example of one approach to combining and using both e-tivities and the five-stage model, and explores the skills and role of the e-moderator in depth.