CHAPTER 1
Adult learning

Learning outcomes

By the end of this chapter you should be able to demonstrate an understanding of
- how adults learn
- the contribution of experiential learning
- motivation

Introduction

While adult learners differ from children and adolescents in a wide variety of ways (largely as a consequence of the voluntary character of adult learning), they retain some characteristics, particularly a perceived need to see the teacher as a fount of all knowledge and insight. In general, however, adult learners (and health professionals in particular) can be thought of as having the capacity to demonstrate different attributes (Knowles, 1973).

Knowles and the adult learner

Autonomy and self-determination

These are not always possible in formal learning but, in general, health professionals have at least the capacity to take decisions about the direction and timing of their learning. This aspect is particularly important when engaging with blended learning environments comprising virtual learning environment (VLE) and face-to-face experiences. Where decisions are taken out of their hands – for example by being sent on a course – there may be some initial resistance unless learning can be experienced as stimulating

and valuable. This clearly has implications for motivation and this will be explored later in the chapter.

Life experience and knowledge

Most health professionals have had many years of formal full-time education (13 years in school, 3–6 years in higher education) and many more years in postgraduate training. No matter how receptive they may be to new ideas, there is a great deal of conservatism which needs to be overcome before learning can occur. This has been represented by Lewin (1951) in the following way:

Unfreezing – change – refreezing
Unfreezing is the point at which the learner becomes open to the idea of change (in understanding, affect, skill level); change is then incorporated and reinforced through feedback and ongoing practice both in the training environment and in the workplace.

Goal orientated
Many adults like to have an outcome or a clear product from their efforts. Learning for its own sake may have some attractions at certain times, but it is not a luxury that busy professionals can include in their working lives.

Relevance orientated
Similarly, learning has to be relevant to work-based practices if it is to be valued by learners. As well as subject matter, this also relates to level: material can fail to be relevant if it is too easy or too complex. Content needs to be constructed around the experiences of the learner. In this case, the learning is located quite explicitly within a 'community of practice' and this will be explored later in the chapter.

Practical
Learners get a great deal from integrating skills, knowledge and affect in complex, practical learning events, preferably related to previous experience and/or expectation of future practice. Nana Gitz Holler (Denmark), a learner on a European Provider Course, wrote

> … we are not machines and this course gives room for us to think and makes the whole teaching session and the teamwork alive and interesting. It opens up for discussions and that is where you really learn something – not only from the instructors but also from the other candidates.

Esteem

Ask health professionals about negative experiences of learning and they are likely to mention humiliation. Good education acknowledges the contribution that learners can make to the learning of others including the teachers (and respects their achievements thus far).

The experiential learning cycle

There are a number of theories of adult learning that are relevant to those involved in continuing medical education, but it is beyond the scope of this book to explore them all. Relevant titles are included in the references at the end of each chapter for those who are interested in exploring some of these. However, there is one theory that is useful to explore briefly here, that of experiential learning.

This theory was based on ideas about reflection developed in the 1930s by John Dewey (1938). One of the components is the experiential learning cycle, illustrated in Figure 1.1.
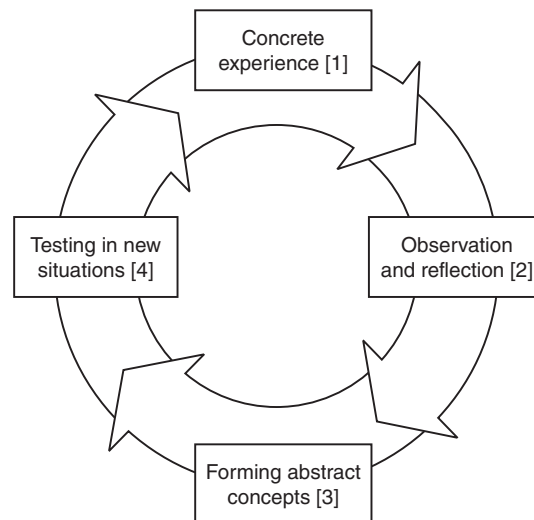

Figure 1.1 Experiential learning cycle
Source: Kolb 1975. Reprinted with permission of Wiley & Sons.

This model, attributed to Kolb and Fry (1975), is a helpful source of explanation for what we do all the time. We have hundreds of experiences every day, but most of them pass us by. If, however,

we are to learn from them, we have to be willing and able to go round the cycle.

Experience, any event, however small. Enabling learners to utilise experience provides the foundation for them to maximise learning.

Observation and reflection is the process of describing the event and trying to understand its significance. This stage can sometimes be captured by asking the following questions:

- What happened?
- What did it feel like?

These questions are intended to enable the learner to look in some detail at events and identify some of their emotional components.

Forming abstract concepts is an attempt to generalise from the specific, by asking:

- What does it mean?
- Do I need to change?

Take as an example, being late for a workshop. The focus of your observation and reflection will (inevitably) be related to that specific event, that is being late on that occasion and your thinking might be: 'The next time I am due to lead a workshop, I will set off a little earlier'. The conceptualisation phase, however, will explore being late in other contexts and the generalisation would be framed in more general terms, thus: 'When I am due to go somewhere to do something, I will set off earlier than I think I need to, just in case something holds me up on the way'. This kind of thinking therefore leads into

Testing in new situations, considering the question:

- How might I be different in the future?

Note that it is 'I' being different. It is easier to change your own behaviour than it is to change that of others.

By going round the experiential learning cycle, a learner can capitalise on personal insight into events that are often taken for granted, but which can benefit from closer examination. Most experiences probably do not justify this exploration, but if behaviour seems to be working against us (e.g. as in the case of being habitually late), there is some real merit in exploring experience in a more systematic way.

In the context of continuing medical education, the experiential learning cycle has the merit of the systematic, shared exploration of repeat practice in a controlled environment, with feedback and discussion seeking to achieve improvement and develop competence which can be employed back in the workplace (see Chapter 8).

Blended learning

As is explored in Chapter 9, technology has had an impact on the nature of the learning environment and the way in which the learning experience is structured.

A number of myths exist about e-learning and can often misinform the learner even before they access a VLE. Mattheos et al. (2001) describe these myths as

> *a passing fad, only for knowledge acquisition, ineffective and inefficient, loneliness in learning, redundant teachers, technology predominating and it being an unrealistic dream.*

This need not be the case. A flexible blended learning opportunity can be at least equivalent or better than traditional face-to-face teaching. For adult learners, there are significant advantages, with relevant content, wide choice and supportive guidance enabling them to choose when they learn, in proximity to additional training/learning or the frequency of learning. As a strategy, it encourages reflection on and in learning, developing these transferable skills into other learning settings, such as simulated practice or group discussion.

The success of blended learning implementation is well demonstrated in the paper evaluating the implementation of the eALS (Perkins et al., 2012). Another paper (Thorne CJ et al., 2015) provides further evidence of the positive impact of blended learning environments.

Situated learning

Situated learning (Lave and Wenger, 1991) is particularly important for adult learners, especially in the context of continuing education, in that it acknowledges the existence of working lives. In the case of doctors and other health professionals, much learning relates directly to their day-to-day practices and as such can be seen as being a component of their situation. Among the features of situated learning is the notion of the community of practice and it is this that will now be explored.

Community of practice

Communities of practice stem from the notion of shared experience and ways of thinking and talking about that experience. Consider the word 'shock'. What it means to an ED doctor or a paramedic is different to the meaning ascribed to it when someone is describing a surprising social encounter. This crude example is multiplied by the subtleties in language use and

other behaviour that can derive from exposure a group of people going about their professional lives.

A way of exploring this is to invite you to reflect on your experience of taking up a new post. There are a number of things you have to come to terms with

- This is what we do
- The patients always have their tea before the ward round
- The Prof always comes in on Thursdays
- That is Bob's chair/cup/computer
- Did we tell you about the time when …

In translating these behaviours into the structures associated with a community of practice we can see the following:

Practices	This is what we do
Routines	The patients always have their tea before the ward round
Rituals	The Prof always comes in on Thursdays
Artefacts/symbols	That is Bob's chair/cup/computer
Stories and histories	Did we tell you about the time when…

Until you become familiar with some or all of these (and their close and distant relations), you are a newcomer and capable of getting some things wrong, or at least 'Not the way we do it here'. As such, you are a participant, but not a full participant: situated learning describes your status as that of 'legitimate, peripheral participation'. Depending on the force of your personality, and/or your capacity for compliance, it may not be long before you become a full member of the community of practice and it, in turn, may have altered its behaviour slightly in acknowledgment of your impact.

Significant informal learning takes place within the community of practice. Its relevance for courses wanting to contribute towards effective professional performance is that the informal, temporary communities that they create should be similar to those from which the learners come. This is particularly important when setting up and running simulations which, while not being able to replicate 'real life' fully in terms of equipment and human patients, should aspire towards a psychological realism that reflects what people might find in their own practice.

Maximising motivation

Adult learners have to be motivated if they are going to learn and the principle of voluntarism is a key feature of successful adult learning experiences. Almost by definition, learners in continual

medical education contexts will be voluntary – in that nobody is forcing them to attend a programme. Nevertheless, they may be extrinsically motivated, that is the factors that are influencing their attendance may be driven by outside forces. In the context of continuing medical education these include gaining recognition, having something to put on a CV or filling a need for career progression.

Malone and Lepper (1987) have detailed how intrinsic motivation has different, and predominantly internal, drivers and these can be summarised as in Table 1.1.

Table 1.1 Intrinsic motivation	
Factors	**Elements**
Challenge	Meaningful goals that challenge learners just beyond their comfort zones
Curiosity	An expectation that there may be better ways of doing things; that there are things that you do not know
Independence	Learners demonstrating the need to move towards autonomy
Imagination	The capacity to work in 'let's pretend' environments (see particularly Chapter 5) where risks can be taken in safety
Social comparison	The desire to judge personal performance against that of others
Interdependence	The willingness to contribute towards others' learning
Esteem	Knowing that success will contribute towards feeling good about oneself

Extrinsic motivation is often regarded as 'bad' in comparison to 'good' intrinsic motivation, and it is generally true that people are more likely to own up to intrinsic drivers when asked, for example, why they are attending a course. It is likely that most individuals are motivated both extrinsically and intrinsically. Those motivated solely by external factors can, however, still be effective learners if certain needs are met.

Most reports of Maslow's hierarchy of needs (1971) have five layers in the pyramid, but the model shown in Figure 1.2 acknowledges his later thinking.

This classical theory of motivation demands that much of the lower-level needs have to be met before the learner can move up to the next level. In practical terms, this means that an educational experience has to guarantee a number of conditions. These are explored in Table 1.2.

Figure 1.2 Maslow's hierarchy of needs (http://chiron.valdosta.edu/whuitt/
COL/motivation/motivate.html)
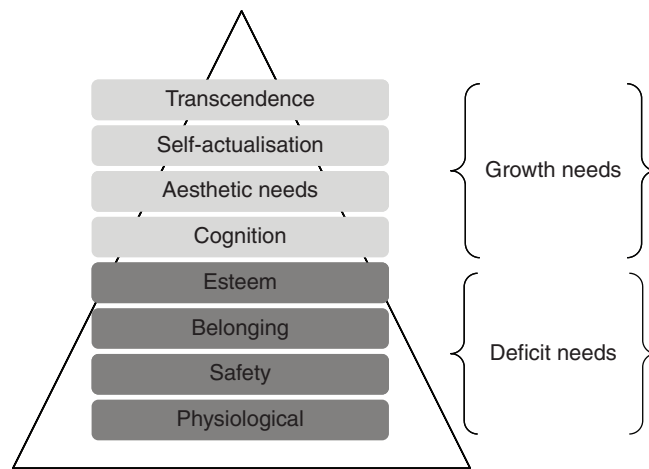
Source: Adapted from Huitt 2011.

Table 1.2 Maslow's hierarchy of needs	
Need	**Implications for programme design and presentation**
Physiological needs (to maintain homeostasis)	
Warmth, food, drink, shelter, sex	Attention to the environment: adequate accommodation, regular refreshment breaks, a reasonable working day
Safety needs (to be free from the threat of aggression, hostility)	
Physical and psychological security	Guaranteeing freedom from external threats (fire, etc.); secure boundaries; no obvious ego threat
Social needs (to develop a sense of belonging)	
Legitimate membership; community	The opportunity to interact through social exchange (e.g. during registration, but also in opening activities through introductions and an opportunity to share experiences, thinking)
Esteem needs (to develop a sense of self-worth and the capacity to engender that in others	
Respect, confidence, competence	The opportunity to acquire knowledge and skills and the ability to manifest appropriate attitudes through structured learning interventions with supportive and authentic feedback

Table 1.2 Maslow's hierarchy of needs (*Continued*)

Need	Implications for programme design and presentation
Cognitive needs (to know and understand)	
Different levels of cognition: • Knowledge • Comprehension • Application • Analysis • Synthesis • Evaluation Different levels of skill acquisition • Perception • Guided response • Mastery • Autonomy Different levels of attitudes • Perceiving • Complying • Accepting • Internalising	Through demonstration, modelling, specific instruction and feedback, learners can move through the levels via: Cognition: types of questions Skills: four-stage approach Attitudes: encouragement appropriate affect (e.g. team membership)
Aesthetic needs (to value symmetry, order)	
	A programme that works, e.g. runs to time, experienced and competent instructors who care about learning – for themselves and others – and fun
Self-actualisation (to be an autonomous individual)	
In touch with reality Acceptance of self and others Spontaneous Problem-solving Tolerance of ambiguity Gemeinschaftsgefühl (empathy and compassion) Creativity	An experienced faculty capable of manifesting these behaviours as a matter of routine gives learners confidence and also models appropriate behaviour
Self-transcendence (to develop actualisation among others)	
Concern for others' development Ego security – not threatened by others' achievements	As above

Maslow's theory has been criticised for its lack of scientific rigour, but it does have some useful things to say about how events can be organised and presented. It is certainly true that unless the basic needs at the bottom of the hierarchy are met, at least to some extent, then learning will be hampered. Accordingly, attention to the conditions within which learning is to take place is essential. More important, however, is the psychological domain within which people will interact with others in a complex, dynamic environment. It is the responsibility of the trainer to ensure that this is a challenging but safe area within which people will learn.

Summary and learning

Adults are usually voluntary learners and need to be actively engaged in their own learning. They need goal-orientated, relevant, practical experiences in order to get the most from teaching. Where possible, this should have its origins in the workplace environments from which learners come. While many admit only to intrinsic motivation the reality is that many external factors affect this as well. Blended learning opportunities offer adult learners both variety and enable choices to be made regarding when and how they learn.

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