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How People Learn

Key concepts and terms

- Affective learning
- Discretionary learning
- Experiential learning
- Learning
- Operant conditioning
- Self-reflective learning

- Cognitive learning
- Experienced worker's standard (EWS)
- Instrumental learning
- The learning curve
- Reinforcement
- Social learning

Learning outcomes

On completing this chapter you should be able to define these key concepts. You should also know about:

- The types of learning
- Learning theories
- Learning to learn
- The implications of learning theory and concepts

- The learning process
- Learning styles
- The motivation to learn

Introduction

An understanding of how people learn is necessary if learning is to take place effectively. The aims of this chapter are to summarize the different ways in which people in general learn – learning theory; describe how individuals learn – their learning styles and 'learning to learn'; and set out the practical implications of these theories, concepts and approaches.

Learning defined

Learning has been defined by Kim (1993) as the process of 'increasing one's capacity to take action'. It can be described as the modification of behaviour through experience. A distinction was made between learning and development by Pedler *et al* (1989), who see learning as being concerned with an increase in knowledge or a higher degree of an existing skill, whereas development is more towards a different state of being or functioning.

Argyris (1993) makes the point that: 'Learning is not simply having a new insight or a new idea. Learning occurs when we take effective action, when we detect and correct error. How do you know when you know something? When you can produce what it is you claim to know.'

Types of learning

1. Instrumental learning – learning how to do the job better once the basic standard of performance has been attained. It is helped by learning on-the-job.

2. Cognitive learning – outcomes based on the enhancement of knowledge and understanding.

3. Affective learning – outcomes based on the development of attitudes or feelings rather than knowledge.

4. Self-reflective learning – developing new patterns of understanding, thinking and behaving and therefore creating new knowledge (Harrison, 2005).

The learning process

Honey (1998) declared that: 'Learning is complex and various, covering all sorts of things such as knowledge, skills, insights, beliefs, values, attitudes and habits.'

Individuals learn for themselves and learn from other people. They learn as members of teams and by interaction with their managers, co-workers and people outside the organization.

People learn by doing and by instruction. The ways in which individuals learn will differ and the extent to which they learn will depend largely on how well they are motivated or self-motivated. Discretionary learning can take place when individuals of their own volition actively seek to acquire the knowledge and skills they need to carry out their work effectively. It should be encouraged and supported.

The effectiveness of learning will be strongly influenced by the context in which it takes place. This includes the values of the organization. Is it truly believed that learning is important as a means of developing a high performance culture and achieving competitive advantage? Is this belief confirmed by actions that encourage and support learning? Is the approach to learning delivery in line with the following beliefs?

SOURCE REVIEW

Conditions for effective learning, Birchall and Lyons (1995)

For effective learning to take place at the individual level it is essential to foster an environment where individuals are encouraged to take risks and experiment, where mistakes are tolerated, but where means exist for those involved to learn from their experiences.

Learning theory

There are a number of learning theories, each of which focuses on different aspects of the learning process as applied to people in general. The main theories are concerned with:

- reinforcement;
- cognitive learning;
- experiential learning;
- social learning.

Reinforcement theory

Reinforcement theory is based on the work of Skinner (1974). It expresses the belief that changes in behaviour take place as a result of an individual's response to events or stimuli and the ensuing consequences (rewards or punishments). Individuals can be 'conditioned' to repeat the behaviour by positive reinforcement in the form of feedback and knowledge of results. This process is known as 'operant conditioning'.

Gagne (1977) later developed his stimulus-response theory, which relates the learning process to a number of factors, including reinforcement, namely:

- drive – there must be a basic need or drive to learn;
- stimulus – people must be stimulated by the learning process;
- response – people must be helped by the learning process to develop appropriate responses, ie the knowledge, skills and attitudes that will lead to effective performance;
- reinforcement – these responses need to be reinforced by feedback and experience until they are learnt.

Cognitive learning theory

Cognitive learning involves gaining knowledge and understanding by absorbing information in the form of principles, concepts and facts and then internalizing it. Learners can be regarded as powerful information processing machines.

Experiential learning theory

People are active agents of their own learning (Reynolds *et al*, 2002). Experiential learning takes place when people learn from their experience by reflecting on it so that it can be understood and applied. Learning is therefore a personal 'construction' of meaning through experience. 'Constructivists' such as Rogers (1983) believe that experiential learning will be enhanced through facilitation – creating an environment in which people can be stimulated to think and act in ways that help them to make good use of their experience.

Social learning theory

Social learning theory states that effective learning requires social interaction. Wenger (1998) suggested that we all participate in 'communities of practice' (groups of people with shared expertise who work together) and that these are our primary sources of learning. Bandura (1977) views learning as a series of information-processing steps set in train by social interactions.

Learning styles

Learning theories describe in general terms how people learn, but individual learners will have different styles – a preference for a particular approach to learning. The two most familiar classifications of learning styles are those produced by Kolb and by Honey and Mumford.

Kolb's learning style inventory

Kolb *et al* (1974) identified a learning cycle consisting of four stages, as shown in Figure 43.1.
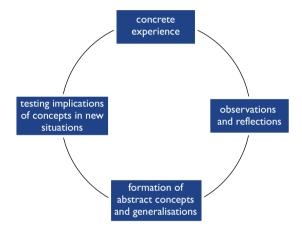

Figure 43.1   The Kolb learning cycle

He defined these stages as follows:

- Concrete experience – this can be planned or accidental.

- Reflective observation – this involves actively thinking about the experience and its significance.

- Abstract conceptualization (theorizing) – generalizing from experience to develop various concepts and ideas that can be applied when similar situations are encountered.

- Active experimentation – testing the concepts or ideas in new situations. This gives rise to a new concrete experience and the cycle begins again.

The key to Kolb's model is that it is a simple description of how experience is translated into concepts that are then used to guide the choice of new experiences. To learn effectively, individuals must shift from being observers to participants, from direct involvement to a more objective analytical detachment. Every person has his or her own learning style and one of the

most important arts that trainers have to develop is to adjust their approaches to the learning styles of trainees. Trainers must acknowledge these learning styles rather than their own preferred approach.

Kolb also defined the following learning styles of trainees:

- *Accommodators* who learn by trial and error, combining the concrete experience and experimentation stages of the cycle.

- *Divergers* who prefer concrete to abstract learning situations and reflection to active involvement. Such individuals have great imaginative ability, and can view a complete situation from different viewpoints.

- *Convergers* who prefer to experiment with ideas, considering them for their practical usefulness. Their main concern is whether the theory works in action, thus combining the abstract and experimental dimensions.

- *Assimilators* who like to create their own theoretical models and assimilate a number of disparate observations into an overall integrated explanation. Thus they veer towards the reflective and abstract dimensions.

The Honey and Mumford learning styles

Another analysis of learning styles was made by Honey and Mumford (1996). They identified the following four styles.

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SOURCE REVIEW

The Honey and Mumford learning styles

1. *Activists* who involve themselves fully without bias in new experiences and revel in new challenges.

2. *Reflectors* who stand back and observe new experiences from different angles. They collect data, reflect on them and then come to a conclusion.

3. *Theorists* who adapt and apply their observations in the form of logical theories. They tend to be perfectionists.

4. *Pragmatists* who are keen to try out new ideas, approaches and concepts to see if they work.

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However, none of these four learning styles is exclusive. It is quite possible that one person could be both a reflector and a theorist and someone else could be an activist/pragmatist, a reflector/pragmatist or even a theorist/pragmatist.

Use of learning style theory

Learning style theory can be used in the design and conduct of learning events or personal development programmes. Learning situations can be designed to fit the learning style of participants. The problem is that people do not necessarily have a single learning style and there will certainly be a large range of styles in any learning group. It may therefore be difficult to fit the approach to the style. Coffield (2005) stressed instead the importance of individuals' 'thinking styles' – that is, their automatic way of organizing and processing information during learning – and of their 'learning strategy', meaning the approach they adopt to try to overcome the limitations of their natural thinking style.

Learning to learn

People learn all the time and through doing so acquire knowledge, skills and insight. But they will learn more effectively if they 'learn how to learn'. As defined by Honey (1998), the process of learning to learn is the acquisition of knowledge, skills and insights about the learning process itself. The aims, as described by Honey, are to:

- provide a basis for organizing and planning learning;
- pinpoint precisely what has been learnt and what to do better or differently as a consequence;
- share what has been learnt with other people so that they benefit;
- check on the quality of what has been learnt;
- transfer what has been learnt and apply it in different circumstances;
- improve the learning process itself so that how people learn, not just what people learn, is given constant attention.

The learning curve

The concept of the learning curve refers to the time it takes an inexperienced person to reach the required level of performance in a job or a task. This is sometimes called the 'experienced worker's standard' (EWS). The standard learning curve is shown in Figure 43.2.
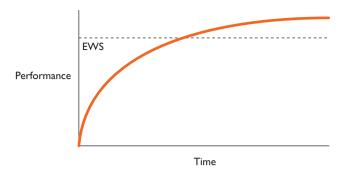
Figure 43.2   A standard learning curve

However, rates of learning vary, depending on the effectiveness of the training, the experience and natural aptitude of the learner and the latter's interest in learning. Both the time taken to reach the experienced worker's standard and the variable speed with which learning takes place at different times, affect the shape of the curve, as shown in Figure 43.3.
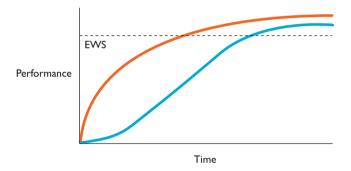

Figure 43.3   Different rates of learning

Learning is often stepped, with one or more plateaus, while further progress is halted. This may be because learners cannot continually increase their skills or speeds of work and need a pause to consolidate what they have already learnt. The existence of steps such as those shown in Figure 43.4 can be used when planning skills training to provide deliberate reinforcement periods when newly acquired skills are practised in order to achieve the expected standards.
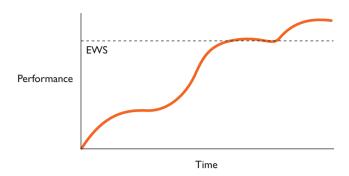
Figure 43.4   A stepped learning curve

When a training module is being prepared that describes what has to be learnt and the training needed to achieve the required levels of skill and speed, it is often desirable to proceed step-by-step, taking one task or part of a task at a time, reinforcing it and then progressively adding other parts, consolidating at each stage. This is called the 'progressive parts method of training'.

The motivation to learn

People will learn more effectively if they are motivated to learn. The motivation to learn can be defined as 'those factors that energize and direct behavioural patterns organized around a learning goal' (Rogers, 1996). As Reynolds *et al* (2002) comment, 'The disposition and commitment of the learner – their motivation to learn – is one of the most critical factors affecting training effectiveness. Under the right conditions, a strong disposition to learn, enhanced by solid experience and a positive attitude, can lead to exceptional performance.'

Two motivation theories, as described in Chapter 18, are particularly relevant to learning. *Expectancy theory* states that goal-directed behaviour is driven by the expectation of achieving something the individual regards as desirable. If individuals feel that the outcome of learning is likely to benefit them they will be more inclined to pursue it. When they find that their expectations have been fulfilled, their belief that learning is worthwhile will be reinforced. *Goal theory* states that motivation is higher when individuals aim to achieve specific goals, when these goals are accepted and, although difficult, are achievable, and when there is feedback on performance. Learning goals may be set for individuals (but to be effective as motivators they must be agreed) or individuals may set their own goals (self-directed learning).

The implications of learning theory and concepts

The practical implications of the learning theories described above are summarized in Table 43.1.

Table 43.1   The implications of learning theory and concepts

Theory/concept	Content	Practical implications
The process of learning	Learning is complex and is achieved in many different ways The context is important	Different learning needs require different learning methods, often in combination Learning effectiveness depends on the extent to which the organization believes in learning and supports it
Reinforcement theory	Behaviours can be strengthened by reinforcing them with positive feedback (conditioning)	Reinforcement theory underpins training programmes concerned with developing skills through instruction. In these, the learner is conditioned to make a response and receives immediate feedback, and progress is made in incremental steps, each directed to a positive outcome
Cognitive learning theory	Learners acquire understanding that they internalize by being exposed to learning materials and by solving problems	The knowledge and understanding of learners can be enriched and internalized by presenting them with learning materials (eg e-learning). Case studies, projects and problem-solving activities can also be used for this purpose Self-directed learning, personal development planning activities and discovery learning processes with help from facilitators, coaches or mentors are underpinned by cognitive learning theory
Experiential learning theory	People learn by constructing meaning and developing their skills through experience	Learning through experience can be enhanced by encouraging learners to reflect on and make better use of what they learn through their own work and from other people. Self-directed learning and personal development planning activities with help from facilitators, coaches or mentors are also underpinned by experiential learning theory, as is action learning

Table 43.1 *continued*

Theory/concept	Content	Practical implications
Social learning theory	Learning is most effective in a social setting. Individual understanding is shaped by active participation in real situations	Learning can be encouraged in communities of practice and in project teams and networks
Learning styles	Every person has their own learning style	Learning programmes need to be adjusted to cope with different learning styles. Trainers have also to flex their methods. People will learn more effectively if they are helped to 'learn how to learn' by making the best use of their own style but also by experimenting with other styles
The learning curve	The time required to reach an acceptable standard of skill or competence, which varies between people. Learning may proceed in steps with plateaus rather than being a continuous process	Recognize that progress may vary and may not be continuous. Enable learners to consolidate their learning and introduce reinforcement periods in training programmes to recognize the existence of learning steps and plateaus
The motivation to learn	People need to be motivated to learn effectively	Learners should be helped to develop learning goals and to understand the benefits to them of achieving them. Performance management processes leading to personal development plans can provide a means of doing this

How people learn – key learning points

The types of learning

Instrumental learning, cognitive learning, affective learning and self-reflective learning.

The learning process

Individuals learn for themselves and learn from other people. They learn as members of teams and by interaction with their

How people learn – key learning points (continued)

managers, co-workers and people outside the organization. People learn by doing and by instruction. The ways in which individuals learn will differ and the extent to which they learn will depend largely on how well they are motivated or self-motivated.

Learning theories

Reinforcement, cognitive learning, experiential learning and social learning.

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The implications of learning theory and concepts

See Table 43.1.

Questions

1. What are the main types of learning and how can they be put to use on a learning event?

2. Your local newspaper is publishing a supplement on learning and development and has asked you to write a brief piece on what, in your experience and that of relevant research, are the key factors that determine how well people learn. Draft an outline of your article.

3. Critically evaluate a learning style model such as Honey and Mumford's as a basis for designing learning events and processes.

References

Argyris, C (1993) *Knowledge for Action: A guide to overcoming barriers to organizational change*, Jossey Bass, San Francisco, CA

Bandura, A (1977) *Social Learning Theory*, Prentice-Hall, Englewood Cliffs, NJ

Birchall, D and Lyons, L (1995) *Creating Tomorrow's Organisation*, Pitman, London

Coffield, J (2005) Thinking styles, *People Management*, 15 June, p 24

Gagne, R M (1977) *The Conditions of Learning*, 3rd edn, Rinehart and Winston, New York

Harrison, R (2005) *Learning and Development*, 4th edn, CIPD, London

Honey, P (1998) The debate starts here, *People Management*, 1 October, pp 28–29

Honey, P and Mumford, A (1996) *The Manual of Learning Styles*, 3rd edn, Honey Publications, Maidenhead

Kim, D H (1993) The link between individual and organizational learning, *Sloane Management Review*, **35** (1), pp 37–50

Kolb, D A, Rubin, I M and McIntyre, J M (1974) *Organizational Psychology: An experimental approach*, Prentice Hall, Englewood Cliffs, NJ

Pedler, M, Boydell, T and Burgoyne, J (1989) Towards the learning company, *Management Education and Development*, **20** (1), pp 1–8

Reynolds, J, Caley, L and Mason, R (2002) *How Do People Learn?*, CIPD, London

Rogers, A (1996) *Teaching Adults*, Open University Press, London

Rogers, C R (1983) *Freedom to Learn*, Merrill, Columbus, OH

Skinner, B F (1974) *About Behaviourism*, Cape, London

Wenger, E (1998) *Communities of Practice: Learning, meaning and identity*, Cambridge University Press, Cambridge