

# KEY-LINE

# TEACHING AND LEARNING THEORETICAL PERSPECTIVES

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# Introduction

This module looks at theories about how people learn and about the best ways to help them to learn, and how these theories can help you teach key skills and Skills for Life. Working through this module will not make you an expert in these theories, but it will help you see how the ideas put forward by psychologists, sociologists and teachers can change how we think about teaching and learning, and suggest new and more effective ways of going about our work.

The module highlights four theories or models of learning. In each case, we look at how these point towards particular methods or techniques for teaching. You will have a chance to examine the relevance of these ideas to your own work with key skills learners. The four models that you will explore are:

- **‘unschooling’** – how poor-quality teaching can suppress young people’s natural capacity to learn
- **behaviourism** – the role of feedback and reinforcement in sustaining learning
- **social constructivism** – the role of collaboration in learning
- **experiential learning** – how reflection on experience can bridge the gap between abstract ideas and professional practice.

This module will help you understand how an awareness of theories and research findings can help you to become a reflective practitioner: an informed professional who can look critically at his or her own practice and at the practices of his or her organisation.

# How schools may fail

*The proper place and best place for children to learn whatever they need or want to know is the place where, until very recently, almost all children learned it: in the world itself, in the mainstream of adult life.*

**Holt, J. (1982) *How Children Fail* (2nd edition)**

During the late 1950s and early 1960s John Holt worked as a teacher in an American primary school. He and his colleague Bill Hull became frustrated with the effects that their teaching seemed to have on the behaviour of the children in their classes. They suspected that they were doing more harm than good.

They decided to carry out a joint project: they each took turns to observe each others' lessons and Holt kept what we would now call a reflective diary. The results were two groundbreaking books – *How Children Fail* and *How Children Learn* – that have had a major impact on thinking about the relationship between teaching and learning. *How Children Fail*, first published in 1964, is based on a series of diary entries and memos to Bill Hull which record Holt's day-to-day experiences in the classroom. The entries are organised into four chapters:

- **Strategy** – how children meet, or dodge, the demands adults make of them in school.
- **Fear and failure** – the negative effects that fear of failure can have on students' attitudes to learning.
- **Real learning** – the difference between how students are taught and how they actually learn.
- **How schools fail** – Holt argues that the schools he worked in actually taught young people strategies that limited their capacity to learn.

## **Human beings as born learners**

Holt contrasts young people's failure to respond to teaching with their innate ability to learn. He believes that human beings are naturally very good learners; even when he is most exasperated at his students' negative reactions to formal teaching, he writes about:

*... the tremendous capacity for learning, understanding, and creating with which they were born and of which they made full use during the first two or three years of their lives.*

**Holt, J. (1982) *How Children Fail* (2nd edition)**

For Holt, the roots of the problem lie not in the learners themselves but in the way that schools are organised.

## **Activity: looking at attitudes to learning**

Take a few moments to think about your own learners' experiences of school. How many of them enjoyed learning at school?

How do you think their attitudes towards your programme are influenced by their experiences at school?

## Learning to avoid failure

Holt argues that children fail to learn in school because they are afraid to make mistakes and because they find the work they have to do at school dull and repetitive.

*Why do they fail?*

*They fail because they are afraid, bored and confused.*

*They are afraid, above all else, of failing, of disappointing or displeasing the many anxious adults around them, whose limitless hopes and expectations for them hang over their heads like a cloud.*

**Holt, J. (1982) *How Children Fail* (2nd edition)**

He argues that in school his students were rarely motivated by a desire to build up a better understanding of the world and a better grasp of the knowledge that their teachers were trying to pass on to them. Instead, they were preoccupied with the much more mundane task of getting through their school day with the minimum of fuss and with avoiding the stress of coming up with the right answers to the questions and problems that their teachers set them. Holt found that much of the time his students were trying their hardest to avoid situations where they needed to give any answers that might turn out to be 'wrong'.

*How Children Fail* gives many examples – frequently drawn from maths lessons – of children using 'fail-safe' strategies designed to avoid exposure to failure in the first place or to avoid giving a definite, unequivocal answer that teachers or other learners might see as right or wrong. Here Holt is writing about Emily, a girl who he says cannot bear to be wrong, or even to imagine that she could be wrong:

*The question arose the other day, "What is half of forty-eight?" Her hand was up, in the tiniest whisper she said, "Twenty-four." I asked her to repeat it. She said loudly "I said" then whispered "twenty-four." I asked her to repeat it again, because many couldn't hear her. Her face showing tension, she said, very loudly, "I said that one half of forty-eight is ..." and then, very softly "twenty-four." Still, not many of the students heard. She said, indignantly, "Okay, I'll shout." I said that would be fine. She shouted, in a self-righteous tone, "The question is, what is half of forty-eight. Right?" I agreed. And once again, in a voice scarcely above a whisper, she said "twenty-four".*

**Holt, J. (1982) *How Children Fail* (2nd edition)**

He argues that many children become experts at this sort of strategy.

### **Activity: looking at avoidance strategies**

Have any of your learners picked up 'bad habits' at school? Can you think of any examples where they try to avoid situations where they might come up with the wrong answer?

*Game theorists have a name for the strategy which maximises your chances of winning and minimises your losses if you should lose. They call it 'minimax'. Kids are experts at finding such strategies. They can always find ways to hedge, to cover their bets.*

**Holt, J. (1982) *How Children Fail* (2nd edition)**

## **Why 'schooling' doesn't work**

For Holt 'real learning' was not just about the basics of learning reading, writing and number skills in a vacuum, but much more about encouraging young people and adults to develop their natural abilities and talents. He highlights three basic characteristics of the schools he taught in which worked against this:

- **Fear and failure.** Rewards such as grades and gold stars did not motivate most of the children Holt worked with. The possibility of failing tests and exams and receiving disapproval from the adults in their lives weighed much more heavily with them, and got in the way of 'real' learning.
- **Confusion.** Holt thought that children are often faced with contradictions between what they learn at home and what they learn in school. Parents and teachers do not always share the same opinion. Over and above this, adults in school often behave in different ways from adults at home – it seems that American teachers in the 1960s offered mockery and sarcasm more than praise and encouragement.
- **Boredom.** Holt argued that before they go to school children feel free to explore and discover things for themselves. However, in his view, once they get to school they are presented with a succession of dull, repetitive tasks that make limited demands on their real capabilities.

*They feel that school is a place where they must spend most of their time doing dull tasks in a dull way.*

**Holt, J. (1982) *How Children Fail* (2nd edition)**

## **Learning should be fun!**

Holt tried to bring an element of fun into learning, and would often encourage his students to learn through group activities and games.

*A child is most intelligent when the reality before him arouses in him a high degree of attention, interest, concentration, involvement – in short when he cares most about what he is doing. This is why we should make schoolrooms and schoolwork as interesting and exciting as possible, not just so school can be a pleasant place, but so that children in school will act intelligently, and get into the habit of acting intelligently.*

**Holt, J. (1982) *How Children Fail* (2nd edition)**

## Implications for teaching and learning

Holt was one of the first to highlight the educational value of games. This has now become a major theme in the development of teaching and learning materials. A good example here are the resource packs developed by the DfES through the *Success for All* initiative and now supported through the *National Teaching and Learning Change Programme*.

The maths materials in this series are a case in point: their aim is to encourage innovative approaches that are fun, that encourage interaction and that break away from the traditional approach which tended to present working with numbers as a repetitive series of individual tasks. These materials have been very widely distributed: there should be a copy of the pack somewhere in your organisation.

## Unschooling

In his later books, notably *Instead of Education* (1976, 2nd edition 2004), Holt explored the idea of 'unschooling'. He urged teachers to stand back from teaching and instead become facilitators, providing a wide range of resources and support. He became increasingly convinced of the need to allow the learner to choose how, when, why and what he or she should learn next.

### Activity: looking at choice in learning

Think about how much choice your learners have in their programmes. To what extent are their programmes tailored to their individual needs?

There is almost certainly more scope to match learning to individual needs in the programmes that you are responsible for than was the case in the schools that Holt worked in. This is one of the strengths of many post-16 programmes. In addition, 'personalisation' is now a major priority in the secondary school curriculum.

## Implications for work-based learning

The focus of Holt's work and ideas always remained the best ways of supporting children and young people in learning. He never turned his attention to how adults learn in the workplace. Two of the core ideas in *How Children Learn* do, however, point to the unique value of learning at work:

- **Knowledge cannot be taught in the abstract.** He uses the example of teaching fractions as an 'anaesthetic' experience with little real-world application. Instead, Holt believed in exposing children to real-world problems of increasing complexity. In his later books he encourages parents to help their children learn from newspapers, letters, invoices – anything that could stimulate their curiosity about the world.
- **Children can learn by seeing adults working.** Holt was nostalgic for the time when children and parents could work side by side; in this way children could learn from tasks that were both practical and meaningful.

There is, of course, one other implication of Holt's writing for work-based learning. This is that many of the young adults coming into apprenticeships, E2E programmes and so on may bring with them negative expectations of formal learning and ways of behaving that may stop them from getting the most from their programme. From Holt's perspective, the most important task facing the work-based teacher may be one of breaking down the barriers learners have put up at school and helping them to unlock their underlying capacity to learn.

# Behaviourism

One of the best-known exponents of an approach to psychological theory and research known as ‘behaviourism’ was the American psychologist B. F. Skinner (1904–90). He attempted to base psychological research firmly on objective observations that he could test and repeat in the laboratory. He was influenced by earlier behaviourists such as John Watson (1878–1958), who did not attempt to study what might or might not be going on inside a person’s mind, but focused on individual behaviours that could be recorded by a researcher. The approach to research that evolved from this has two important characteristics:

- Experiments tended to focus on how individuals learn new behaviours, and on events in the environment that make a particular behaviour more or less likely. The early behaviourists focused on quite simple behaviours, such as pressing a lever.
- These early experiments were almost always carried out with animals rather than human beings. Behaviourists wanted to be able to control the environment around the individuals they were studying, and it was much easier to do this when the individuals were animals rather than humans.

## How Skinner studied learning

Skinner started to study psychology in the late 1920s. As a postgraduate he devised a piece of equipment known as the ‘Skinner box’. This created a strictly controlled environment in which specific behaviours – lever presses if the box is designed for a rat, key pecks for the pigeon model – could be mechanically recorded. The box was also equipped so that certain events – lights going on, food being presented to the animal and so on – could be made to happen.

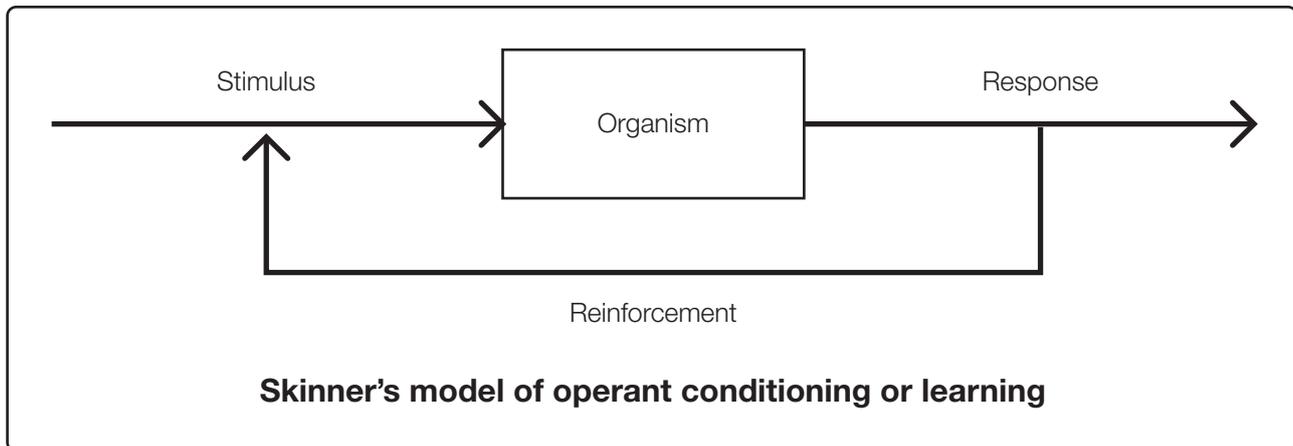


A pigeon pecking – and receiving reinforcement – in a Skinner box

The design of this piece of apparatus is based on the three key concepts Skinner used to analyse and predict behaviour:

- **stimulus**  
This is an event that ‘sets the occasion for a response’. In a typical Skinnerian-style experiment a small light might be lit to act as a stimulus.
- **response**  
This is a specific element of behaviour, such as pecking a key when a particular light is displayed.
- **reinforcement**  
This is an event that happens after the animal (or person) has responded to a stimulus and that increases the probability that he or she will respond in the same way in the future. Typically, in a Skinner box experiment reinforcement takes the form of food.

The diagram below summarises Skinner’s basic model of the learning process, which he called ‘operant conditioning’. In Skinner’s view the key to understanding how individuals learn – and what they learn – is to analyse the relationship between these three elements: stimulus, response and reinforcement.



Skinner found that by scheduling the relationship between stimulus and reinforcement – events in the organism’s immediate environment – he was able to ‘shape’ the rat’s or pigeon’s behaviour. In addition, by stringing together a number of different stimulus-response-reinforcement sequences he was able to build up quite elaborate patterns of behaviour.

## Skinner’s views on reward and punishment

In his early work Skinner talked about both reinforcement and punishment, giving ‘punishment’ a statistical definition based on observations of whether or not a given event decreases the probability of a specific response. His experiments with punishment were, however, much less successful than those with reinforcement. He found that he was unable to build up stable patterns of behaviour with this method, and came to believe that punishment had no place in a scientific approach to shaping behaviour.

*A person who has been punished is not thereby simply less inclined to behave in a given way; at best, he learns how to avoid punishment.*

**Skinner, B. F. (1971) *Beyond Freedom and Dignity***

## **Activity: applying the Skinner model to your organisation**

Skinner's 'stimulus-response-reinforcement' model stresses the importance of making sure that learners receive feedback on their performance promptly, so that the association between response and reinforcement remains strong.

Think about how this works in your own organisation. Can you think of any instances when learners have waited a long time to find out how well they have done?

## **Skinner and education**

In 1953 Skinner found himself sitting in at the back of his youngest daughter's maths class. As he put it:

*... through no fault of her own the teacher was violating almost everything we knew about the learning process.*

**Skinner, B. F. (1954) *Harvard Educational Review***

There was no attempt to treat the children in the class as individuals: some of the students had no idea of how to solve the problems, while others whipped through the exercise sheet, learning nothing new. In his laboratory Skinner had found that it was very important to make an immediate connection between response and reinforcement. But in this maths class the children had no chance to find out if their answer to one problem was correct before moving on to tackle the next one. Skinner left the classroom with a problem – how could one teacher with 20 or 30 children possibly shape mathematical behaviour in each one? His answer was to go home and design his first teaching machine.

## Teaching machines and programmed learning

Skinner designed several types of teaching machine, all based on his laboratory-derived model of learning. In particular, he thought that it was vital to:

- present material in very small chunks, typically one line at a time
- have the learner respond to the stimulus, usually by writing an answer in a specified place
- give reinforcement – in the form of the correct answer to the problem – immediately
- design the lesson, or ‘program’, in a progressive way, with one item building on another so that an average learner could expect to give the right answer about 90 per cent of the time.

### Implications for teaching and learning

Skinner’s first machines were quite simple, little more than a mechanism that allowed a roll of paper to be advanced one line at a time with the ‘stimulus’ appearing in a window and a slot where the learner could write his or her response and where the answer would appear.

Later machines took advantage of electronics and, when personal computers became available, Skinner’s approach to programmed learning provided the rationale for many early computer-based learning packages.

Similarly, his attention to the importance of encouraging the learner to provide a response and then offering reinforcement in the form of feedback on his or her performance remains a major influence on the design of printed distance and open learning packages.

## Skinner and Holt

Skinner’s critique of what goes on in formal classrooms had a number of similarities to the ideas of John Holt. They both criticised traditional approaches for relying too much on punishment as a form of social control. Skinner argued that students adopt behaviours that help them steer clear of punishment – but that frequently these behaviours are quite different from the ones that teachers are trying to help them learn. This mirrors Holt’s ideas on how students’ fear of failure may lead them to adopt ‘fail-safe’ strategies that minimise exposure to failure but which also limit their opportunities to learn.

In addition, Skinner and Holt have a similar view of the most appropriate role for teachers and trainers. Holt urged teachers to stand back from teaching and instead to become facilitators, offering access to a range of resources and support. Similarly, Skinner did not see his teaching machines as replacing or undermining the role of teachers. Instead, he hoped that teachers would now be able to focus on more important things:

*... intellectual, cultural and emotional contact of that distinctive sort which testify to her status as a human being.*

**Skinner, B. F. (1954) *Harvard Educational Review***

### **Activity: your role as a facilitator**

Think about to what extent you act as a facilitator. Do you ask questions as often as you provide answers?

How frequently do you encourage learners to try things out for themselves?

# Learning from others

Both Skinner and Holt put the spotlight on the role of the teacher, but children and adults learn from their peers as well as from teachers: classmates in the case of schoolchildren, colleagues and workmates in the case of adults in employment. ‘Social constructivism’ is an approach to learning theory that stresses the role of this kind of peer interaction. The ideas of the Russian psychologist Lev Vygotsky (1896–1934) have been particularly influential in this area.

## **Learning collaboratively**

Vygotsky stressed the crucial part that language plays in our intellectual development and in shaping how we see the world. He recognised that individual human beings do not need to learn everything about the world around them on their own. In his view, parents and other family members help their children to learn from birth. In his terminology these adults ‘mediate’ the child’s learning so that his or her progress is both shaped and accelerated. The fact that human beings have access to language is a tremendous advantage here: language and culture become the frameworks through which the maturing child experiences, communicates and understands reality.

Vygotsky maintained that peers become children’s main mediators well before they reach adolescence. Children learn from each other and they learn together. For this reason social constructivism puts great stress on the value of collaborative learning. The implication is that teachers should both recognise the role of collaborative learning and take advantage of it.



## Supporting cognitive development

Social constructivism also takes account of the level of intellectual development that the learner has achieved. Before Vygotsky's work became well known in the West – his seminal work *Mind in Society* was published in Russia in the 1920s but not translated into English until 1978 – the Swiss researcher Jean Piaget (1896–1980) had argued that children go through a number of important stages in their intellectual development.

For Piaget the mind of a typical 12-year-old works quite differently from that of an 18-year-old. Piaget's research suggested that children in their first few years in secondary school can see things only in concrete terms; they have to wait until their later teens before they can understand and use abstract ideas or concepts. Educationalists concluded from this that the curriculum should be structured so that abstract concepts would be introduced to young people only when they had reached a level of maturity in their thinking that would allow them to make sense of them.

Vygotsky took a different line. While he also argued that human beings go through a number of cognitive stages as they mature – and many social constructivists have since accepted the importance of Piaget's distinction between concrete and abstract reasoning – Vygotsky argued that teachers and trainers should not just present learners with tasks pitched at their existing level of understanding. Instead, in the words of the educationalist Michael Shayer, Vygotsky concluded that:

*... instruction is good only when it proceeds ahead of development, when it awakens and rouses to life those functions which are in the process of maturing.*

**Shayer, M. (2003) *Learning and Instruction***

## Actual and potential development

This view follows from Vygotsky's emphasis on the power of peer learning. He distinguished between the individual's level of actual development – the level at which he or she can solve problems independently – and his or her level of potential development, which he termed the 'zone of proximal development'. This is the level of performance that the learner can achieve under the guidance of teachers or in collaboration with peers.

## Activity: challenging learners

Think of three examples where you have challenged learners with tasks that are perhaps one or two steps ahead of their present level of performance but which help them achieve their potential.

1

2

3

### Implications for teaching and learning

Social constructivism has become very influential during the last decade. In particular, the work of Vygotsky, used in conjunction with Piaget's ideas on cognitive development, has been a major factor in shaping the approach known as 'cognitive acceleration'.

The Cognitive Acceleration in Mathematics Education (CAME) project started by King's College at the University of London is particularly relevant to key skills teaching. This has focused on the development of collaborative tasks through which small groups of learners tackle carefully structured maths exercises designed to help them to move from concrete tasks to abstract mathematical concepts.

To give one example, a group might begin by comparing a number of cardboard rectangles with differing proportions and be asked to work out which of them can be divided into the greatest number of regularly sized squares. No mention would be made at this point of abstract ideas such as 'area' or 'perimeter'. Later in the exercise, the small groups are asked to come up with 'quicker ways of working out', and their task is now to come up with a formula that will allow them to calculate the area of any rectangle.

A collection of these exercises has been published in *Thinking Maths* (Adhami and Shayer, 2006).

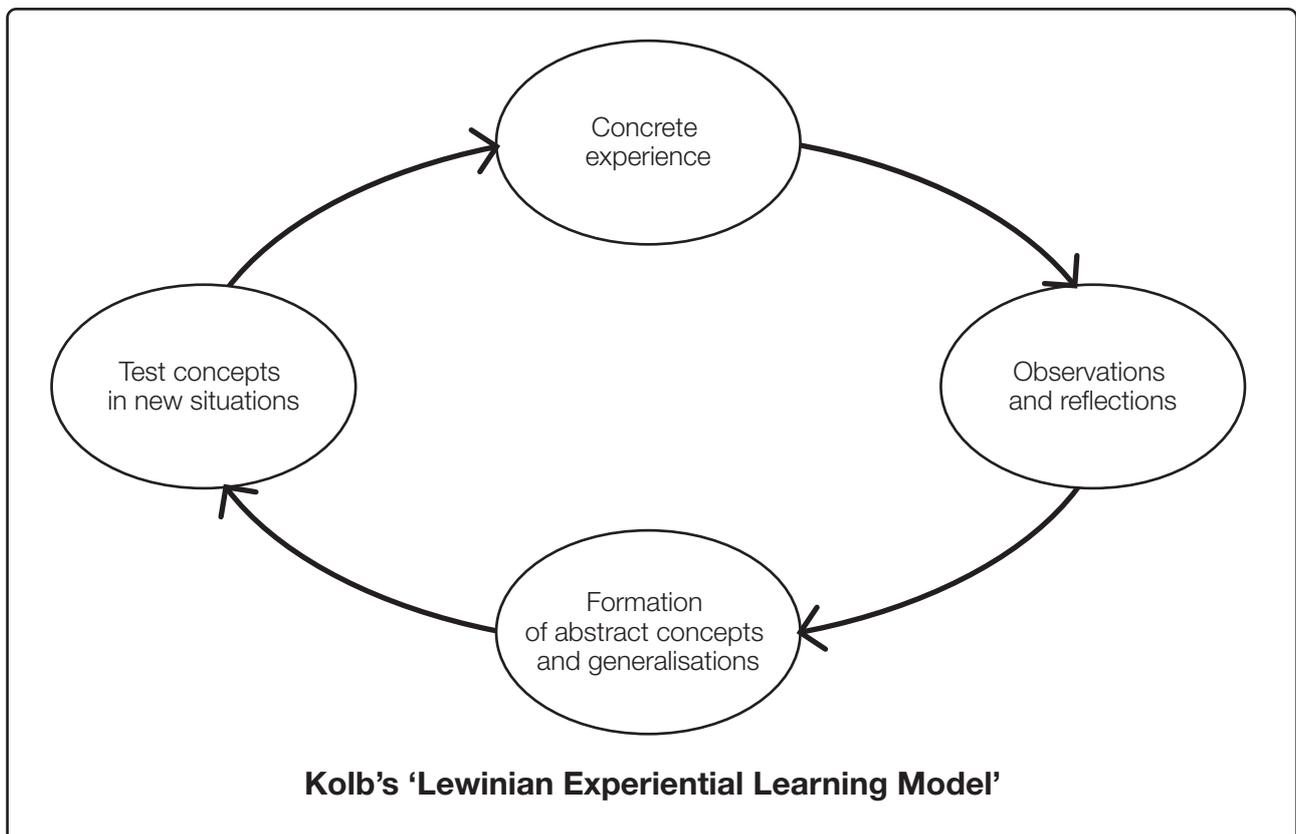
# Learning and reflection

Another important theme in contemporary theories of teaching and learning is the value of reflection as a technique that can help to consolidate and extend learning. This is one of the features of the exercises included in the *Thinking Maths* collection mentioned on the previous page. Here, small-group tasks based on the social constructivist model are followed by ‘whole-group reflections’, where learners are asked to review the lesson as a whole and to comment on the aspects of the session that they found most useful.

You will find examples of this stress on the role of reflection not only in exercises for students but also in frameworks that are being established to formalise continuous professional development for teachers and trainers.

## Kolb and experiential learning

In his book *Experiential Learning: Experience as a Source of Learning and Development* (1984), David Kolb highlighted reflective learning through a diagram of the learning process that has entered the folklore as ‘the Kolb cycle’:



## Activity: reflecting on performance

Do you find time to reflect on your own performance in your work?

In what ways do you find this useful?

In their book *Learn for your Life* (2000), Knasel, Meed and Rossetti argue that reflection is crucial to learning, for several reasons:

- **Reflection can help to bridge the gap between theory and practice**, and between off-job learning and on-job application. Reflecting on real work problems can help to identify how best to apply what we know in practice.
- **Reflection can help deal with ambiguity, stress and change.** In our work, we often have to cope with new, unique problems we have not met before. The ability to reflect is essential to recognising and confronting the uncertainty we feel as we try to deal with these problems.
- **Reflection leads to critical awareness.** Reflection enables us to look critically at our own behaviour, the behaviour of other people, and at the organisational and social context within which we operate.

All this means that reflection is not a bland or innocuous process, but central to people becoming powerful, critical learners prepared to challenge the way things are done.

*We want to encourage teachers, as reflective practitioners, to think about what they do well, to reflect on what they could share with colleagues, as well as identifying their own learning needs.*

**DfES (2001) *Continuing Professional Development***

## Schön and reflection in action

In his book *The Reflective Practitioner* (1983), Donald Schön explored how professionals use reflection to help them approach and tackle the often very complex problems they encounter in their work. Schön believed that, when faced with a new problem, professionals conduct real-world experiments to try to solve that problem. Schön called this creative and artistic approach to problems ‘reflection in action’.

Schön avoids giving a simple recipe for reflection in action, as he believes the process is complex and varied. However, he does describe some of the main things that professionals seem to do when they tackle problems.

- They allow themselves to experience ‘surprise, puzzlement or confusion’. This may simply be a feeling or anxiety that something is wrong, or an awareness that they have not encountered or read about this before. They accept that, while these feelings may be unsettling, they are essential to continually improving what they do.
- They reflect critically on the problem before them. They reflect on the facts as they know them, the relationships involved and on their own feelings. They are prepared to look critically at their own assumptions and at accepted ways of tackling this kind of problem.
- They may then ‘reframe’ the situation. They may come up with a new theory or hypothesis about the problem, and test this out through an experiment.

Schön gives as an example an eye specialist who is confronted with a patient who has two eye conditions at the same time – an inflammation and a glaucoma – both of which appear to be getting worse. The specialist has never met this combination of conditions before, and is initially puzzled about what to do. After initial reflection, he hypothesises that the treatment for each condition is aggravating the other condition. He conducts an experiment to test this out, by temporarily withholding all treatments to see what effect this will have. As a result the glaucoma disappears, proving the hypothesis that it was caused by the treatment for the inflammation. The specialist is then able to consider other ways of treating the inflammation.

## Benner and intuitive reflection

Another leading writer on reflection is Patricia Benner. In her book *From Novice to Expert* (1984), she draws on her research with nurses to describe how people learn as they become more experienced in a role. Benner argues that a person who has just started work in a new job will tend to rely on the rules they have learnt, and seek to apply these to their new experiences in a relatively inflexible way. As they gain greater experience of the work, they are able to progress towards becoming expert in their field. In the process they become less dependent on the rules and more able to reflect on their own experience.

Benner’s ideas echo those of Schön, but she lays additional emphasis on the role of intuitive, creative thinking, which includes ‘the vague feelings, hunches or sense that something is not right’.

She offers insights into how experts apply such intuitive thinking in practice:

- they increasingly come to rely on their own concrete experience as they tackle problems. They recognise similarities with – and differences from – previous problems they have tackled, without jumping to the conclusion that similar problems are identical
- they are increasingly able to look at a situation as a complete whole, and within this to identify those factors that stand out as being especially relevant
- they move from being ‘detached observers’ towards being ‘involved performers’. They are able to tune in to their clients and seek to understand their background.

### **Activity: using intuition and judgement**

To what extent do you trust your own professional judgement in dealing with teaching situations?

Do you find that your ‘hunches’ have become more reliable as you have become more experienced?

# Reflecting critically

When Donald Schön began his research, he did so in direct challenge to what he saw as the predominant ‘technical rationality’, which suggested that professionals could solve problems by following the rules they learnt in their professional education. He believed that the problems we face are more complex than this.

Very often a problem contains a unique set of circumstances, and as a result we are ‘not the only one in the situation to have relevant and important knowledge’. Both our own uncertainties, and our knowledge of other people involved, are relevant to solving the problem. Reflection therefore also needs to include a critical element: this can change both the way we see ourselves and the way we relate to other people. Schön says:

*As teachers attempted to become reflective practitioners, they would feel constrained by and would push against the rule-governed system of the school, and in doing so they would be pushing against the theory of knowledge which underlies the school. Not only would they struggle against the rigid order of lesson plans, schedules, isolated classrooms, and objective measures of performance; they would also question and criticise the fundamental idea of the school as a place for the progressive transmission of measured doses of privileged knowledge.*

**Schön, D. (1983) *The Reflective Practitioner***

## Implications for teaching and learning

Ideas on the value of reflection have made a considerable impact on approaches to continuous professional development (CPD). One concrete outcome of this has been the rise in the use of diaries as a device for helping professionals to reflect critically on their practice in a routine way.

A reflective diary is a journal in which professionals:

- describe their experiences
- make notes on how they felt about these experiences
- record what they have learned from these experiences.

The use of diaries like this is now included in a wide range of CPD programmes for teachers and health care and other professionals.

One of the best examples of the potential value of reflective diaries is in John Holt’s book *How Children Fail* (1982), which is based on Holt’s own journal.

# From theory to practice

This module has introduced a small but important sample of the wealth of theories backed up by research findings that can be relevant to your day-to-day practice in helping learners master the key skills. We have seen that although research may start out as an ‘academic’ exercise – as was certainly the case with Skinner’s original laboratory work with rats and pigeons – it can lead to practical developments which can improve the quality of teaching and learning.

Theories can also make a difference to how we think about the job of teaching as a whole. All the models we have looked at point towards a move from a ‘traditional’ view of the teacher as the source of knowledge towards a more facilitative role that recognises the active role of the learner.

Overall, an awareness of, and interest in, theory and research can help you as a teacher to base your practice on the collective knowledge that has been built up in your professional discipline. In the terminology of the social constructivist approach, it should help you move from your actual or existing level of performance to focus on the development of your potential.

# Resources

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## Weblinks

### John Holt

You can find out more about John Holt’s life and ideas by accessing this link to Wikipedia: [http://en.wikipedia.org/wiki/John\\_Caldwell\\_Holt](http://en.wikipedia.org/wiki/John_Caldwell_Holt)

You can also visit the a website dedicated to John Holt and his magazine *Growing Without Schooling*: <http://www.holtgws.com/index.html>

### B. F. Skinner

You can read a short biography of Skinner by accessing this link to Wikipedia: [http://en.wikipedia.org/wiki/B.F.\\_Skinner](http://en.wikipedia.org/wiki/B.F._Skinner)

The B. F. Skinner Foundation publishes a regular newsletter and has a website: <http://www.bfskinner.org>

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