Some learners may be very receptive to visual forms of information such as pictures and diagrams, whilst others prefer written and spoken explanations. Some people prefer to learn actively and interactively, whilst others work better on their own. The idea of learning styles usually refers to a preferred way of learning. It implies that each individual has a natural inclination toward learning of some kind and, that if that preference can be identified, teaching and learning experiences can be provided to help that person learn more effectively.

Learning styles theory is not intended to pigeonhole or type people, but to understand better the ways they learn.

A review of the most popular theories of learning styles can be found in the section on Difference within Teaching for Effective Learning. This covers:

- Visual, Auditory and Kinaesthetic learners
- The Power of Diversity - Barbara Prashnig
- Kolb's Learning Style Model
- Felder-Silverman Learning Style
- The Myers-Briggs Type Indicator

Learning styles research

Over the years, a number of different learning styles theories have emerged. The majority of these have been based on responses to questionnaires, and since this approach relies on people's willingness and ability to be accurate and objective about the ways that they learn, the validity of learning styles theory has often been questioned.

The most thorough review of learning styles theory was undertaken by the Learning and Skills Research Centre at Newcastle University whose 170-page report entitled 'Learning Styles and Pedagogy in Post-16 Learning' was published in 2004.

The Newcastle University researchers identified a wide range of learning styles models and also reviewed the significant volume of research carried out into learning styles during the past 30 years. This included David Kolb's influential inventory of Learning Styles research between 1971 and 2004, and also Dunn and Dunn's Learning Styles bibliography containing over 1000 entries.

It was not only the number of learning styles models which surprised the Newcastle University team, but the differences in what the models claimed to measure and the terminology used to describe different kinds of learners. The researchers concluded that this is potentially confusing for both schools and educational policy makers who
are not specialists in the field.

Identifying the common beliefs about learning styles

The Newcastle team reviewed 71 models of learning styles developed over the past 50 years and identified 13 as ‘major models’, largely based on their popularity. They also sought to establish 'families’ of learning styles based on common principles and methodologies.

Providing a holistic view of learning styles theory, however, has frequently proved difficult for educational writers since there is no common conceptual framework or language across learning styles models. Although there are some overlapping concepts, there is no direct comparability between models. Across the broad landscape of learning styles models, however, it is possible to draw some broad conclusions:

- Most learning style theories focus heavily on the ability to think
- The skills of visualising and verbalising are common to many models
- Few approaches address the role of feelings and emotions within learning
- Few theories deal with the role of physical activity within learning.

In summary, the Newcastle researchers were sceptical about the validity and reliability of most of the main learning styles theories. Little, if any, of the research on which the main theories are based has ever been published and there is a lack of scientific evidence to support the underpinning constructs of learning styles theory.

No universally accepted theory

The BECTA report on learning styles (2005) support several of the key conclusions of the Newcastle University review. The BECTA report concluded that, despite the many opinions on learning styles, there are few generally agreed facts. Whilst some theories are more influential than others, no model of learning styles is universally accepted. The BECTA report, however, summarised some of the consistent messages associated with learning styles.

- There is no secure evidential base to support any one theory of learning styles - it is important to be aware of the limitations of any learning styles model and indeed of the field as a whole.
- Any theory or model of learning styles is a simplification of the complexity of how students learn.
- Learning styles are at best one of a range of factors determining how learners react to learning opportunities - environment, teaching methods and curriculum requirements are all part of a complex pattern of interactions.
- There is a danger inherent in learning styles of labelling students as particular kinds of learners - given the lack of robust evidence in the field, labelling strategies seems safer than labelling learners.
- An awareness of learning styles theories may help to develop metacognition and the ability to learn how to learn.
- At least some aspects of learning styles and strategies can be taught, regardless of the natural inclination of individual learners.

A number of influential writers (including Kolb, Honey and Mumford) have argued recently that learning styles are not determined by inherited characteristics, but develop through experience. Styles are, therefore, not necessarily fixed and can change over time, even from one situation to the next. Bloomer and Hodkinson (2000) argue that learning styles are not a major determinant of how people learn and that the effects of contextual, cultural and relational issues are much greater.

Suzuki and Restak also promote the possibility that the brain has the ability to change (plasticity) and transform itself based on experience. If this is true, then it is possible that learning styles can also change and transform themselves based on experience. If teachers promote a preferred set of learning styles for individual students, they may in fact be limiting their ability to learn from a neurological perspective.

If learning styles are not fixed traits, but can change and adapt to different situations
and learning contexts, this suggests that schools should place less emphasis on identifying the learning styles of students and more on encouraging a balanced approach to learning.

The argument for learning styles

Although the value of learning styles theory has been questioned in recent years, this has been due largely to the lack of scientific research to support the various models, particularly in relation to gains in learning and attainment. Nevertheless, there is a common acceptance that people do learn in different ways and that greater awareness of learning preferences and styles helps teachers to be more flexible in their teaching and to use a wider range of classroom methodologies.

Recent work by Cheminais (2002), Reid (2005) and Burnett (2005) identifies learning style as an important idea for inclusive learning and teaching in the classroom. Cheminais (2002) believes that effective and successful teachers will:

- show respect for pupils’ individual learning styles and differences
- be responsive to pupils’ different learning styles
- use different levels of tasks and activities.

The DEMOS Working Group led by David Hargreaves concluded that 'Many teachers are successfully using learning styles as a means of getting students to reflect deeply on their learning and thus develop their meta-cognitive capacities.' (DEMOS, 2005)

If we accept we are different in similar ways and that it is possible to identify and measure these differences reasonably accurately, then the potential benefits for teachers and learners are considerable. A greater knowledge of a range of learning styles will help teachers to:

- be more aware of their preferred teaching style. This might include the way they communicate and the kinds of methods and techniques used to explain things. It might also include the way they plan lessons and the kinds of tasks and activities devised for learners.
- recognise their students’ learning styles, particularly those that are different from their own.
- understand better the difficulties and barriers that young people experience in their learning.

Potentially, the most attractive claim is that teachers will be able to match their teaching to their students’ learning styles by explaining and presenting things in different ways, using alternative teaching aids and techniques and tailoring the activities that they provide to suit their students’ learning styles. Greater awareness of their own dominant learning styles can help teachers to provide learning activities that are more inclusive of the other styles and which reach all learners.

Even those educationalists who question the validity of learning styles as a concept, agree that there is a benefit in enabling learners to reflect on how they learn best and this is an important aspect of developing metacognition in young people. Some writers conclude that fostering metacognition is perhaps the most important advantage that can be claimed for applying learning styles theory to learning and teaching.

Learning styles - the main messages

It is important to recognise that there is no single learning style theory that is universally accepted, nor is there a ‘right’ way to study or ‘best’ way to teach. Teachers should also avoid the temptation to try to categorise or confine individual pupils to one learning style. Age, educational level, and motivation influence each pupil’s learning so that what was once preferred may no longer be that pupil’s current preferred learning style.

Nevertheless, greater awareness of learning preferences and styles helps teachers to
be more flexible in their teaching and to utilise a wider range of classroom methodologies. The aim is not to match teaching style to learner preferences, but to help young people build their skills and capacities to learn well in both preferred and less preferred modes of learning.

The main messages for teachers, schools and learners are as follows.

1. Do not place too much faith in any one learning styles theory. Most are not very robust or reliable. A learning style should not be thought of as an absolute, nor should it be considered the main determinant of intelligence, ability or competence.

2. Most students have elements of more than one learning style. They may have a preference for one way of learning, but can also learn in other ways although it may be harder to do so. Knowing their preferred learning styles may help students develop strategies to compensate for weaknesses and build on strengths.

3. Teachers should avoid trying to categorise or confine individual pupils to one learning style. The aim of learning style theory is to help young people build their skills and capacities to learn well in both preferred and less preferred modes of learning. Teachers should also be aware that age, educational level, and motivation influence each pupil’s learning and that preferred learning styles might alter over time.

4. A teacher’s own preferred learning style often becomes his or her predominant teaching style. Teachers who are aware of their preferred teaching styles and the preferred learning styles of each of their learners, are more likely to adopt student-centred learning experiences, even if it is not the way they learned or prefer to learn.

5. Teachers should attempt to use a variety of materials and delivery methods to allow students to at least have their learning style preference partly addressed.

6. It is important that learners are able to make use of all their senses when gathering, processing and recalling information. This is particularly true of visual and kinaesthetic learning. Teachers should be able to vary their approaches when presenting information and contexts for learning, for example, conveying the big picture as well as detailing step-by-step learning where appropriate.

7. Some research suggests that the most able learners are those with reasonably plastic learning styles who can adapt their ability to learn to the prevailing materials and circumstances. In other words, making people move out of their preferred learning style gives them the possibility of developing new learning strategies.

8. Teachers should also be aware of the importance of feelings and emotions in learning, as well as the nature of feedback that they give to learners. This can markedly affect the motivation and achievement of young people.

In summary, helping young people to identify the ways that they learn best and providing them with opportunities to use all their senses and different intelligences is one of the key challenges for policy makers, teachers and parents alike.

Further reading

Books to help you reflect

‘Gifts Differing’ (Isabel Myers, Consulting Psychologists Press, Paulo Alto, 1980)

‘Marching to Different Drummers’ (Pat Burke Guild and Stephen Garger, ASCD, Alexandria, 1998)


‘Learning Styles’ (Becta report, 2005)

Practical books

‘What Type am I?’ (Renee Baron, Penguin Books, 1998)
'I'm not Crazy, I'm Just not You' (RogerPearman and SarahAlbritton, Davies Black, Paulo Alto, California, 1996)

'A Teacher's Guide to Cognitive Type Theory and Learning Style' (CarolynMamchur, ASCD Virginia 1996)

'People Types and Tiger Stripes' (GordonLawrence, CAPT, Florida, 1979)

'The Developing Child' (ElizabethMurphy, CPP, California, 1992)

'Different in Similar Ways' (IanSmith, Learning Unlimited 2005)

'One of a Kind - Making the Most of Your Child's Uniqueness' (LavonneNeff, 1995)

'Please Understand Me' (DavidKiersey and MarilynBates, Prometheus Books, California, 1978)

'Effective Teaching, Effective Learning: Making the personality connection in your classroom' (Alice and LisaFairhurst, Davies Black, Paulo Alto, California 1995)

'The Power of Diversity' (BarbaraPrashnig, DavidBateman, New Zealand 1998)

Useful websites
www.personalitypage.com
www.knowyourtype.com
www.typelogic.com
www.personalitpathways.com