Learning styles – fact or fiction?

Martin Good **and** Anna Rossetti **question the use of learning styles inventories. If we are to use the idea of learning styles to support learners, we must be sure that they do not become another label with which to categorise people. They should be used to increase the confidence and self-awareness of our learners.**

We've known for many years that people have different ways of learning and that the same teaching method does not work equally well for all learners. So it makes sense for trainers and tutors to encourage learners to understand the ways that work best for them, however quirky those may be, and encourage them to feel free to do whatever works. But in the last 20 years or so, the idea of learning styles has become popular, and in the popular versions a lot of complex issues don't get addressed. Instead, we're offered a range of oversimplified, predigested versions of learning styles that don't acknowledge the underlying complexities. Things do not become simple by being oversimplified – they risk losing their meaning altogether.

Basically, it all seems innocent enough. My learning style is the set of behaviours that I prefer to use when I'm learning. If I, and my teachers or trainers, can understand what those are, it should be easier to plan my learning programme in such a way that I learn efficiently. Since many of us don't know what our learning styles really are, perhaps because we were forced into a single model at school that didn't necessarily work, it's sensible to try and find out. The most popular way of doing this is to use an inventory that will pinpoint the particular characteristics that make up a learning style.

But, if we use learning styles as a classification system, a way of categorising people into those who have learning style X and those others with learning style Y, we risk missing the point. There is no evidence that learning styles are as straightforward as this.

Improving own learning and performance

The main reason for including an article on the topic in this journal is that learning styles are explicitly and frequently mentioned in the standards for the key skills, and have also become everyday speak in reports and government documents. For example, in the key skill Improving own learning and performance:

Candidates at level 2 are required to:

> *make sure you understand how planning and reviewing your learning can help improve your performance and what is meant by learning styles and evidence of achievement*

and to:

> *identify ways you learn best (your preferred learning styles/methods of learning).*

At level 3 they must:

> *choose different ways of learning (learning styles) and decide on the methods that best suit you (eg pictures/diagrams, reading/ talking/writing, listening to others, watching or doing something practical)*

and

> *provide information on how the quality of your outcome was affected by factors such as your motivation, the learning situation, your choice of learning style(s) and methods.*

At level 4 they must:

> *use relevant sources of information to inform the review of your current capabilities, including your preferred learning style(s)*

and

> *take responsibility for using different ways of learning to meet new demands, including methods that suit your particular learning style(s).*

In addition, an increasing number of government initiatives specify that different learning styles need to be supported in the materials and methods being recommended, and assumptions about learning styles are prevalent in initiatives to widen participation in post-16 education. There are numerous examples – here are just a few:

- The Tomlinson Report for FEFC (1996) on provision for learners with learning difficulties/ disabilities argues that there is a need for 'redesigning the very processes of learning, assessment and organisation to fit the objectives and learning style of the student'.

- A DfEE study (2001) presents learning style as one of the components that should be encompassed in the diagnostic assessment of trainees.

- The FENTO standards (1999) stipulate that teachers should 'establish and agree individual needs, aspirations and learning styles'.

- Advice from LSDA for work-based learning providers advocates 'Learning style inventories will provide details of different learning preferences. Knowledge of learning preferences can help learners exploit opportunities to learn through activities that match them well with (their) preferred style' (Green 2002).

And, while there appears to be no consistency about whether ALI inspectors commend the use of learning styles, the research of Coffield and colleagues (2004) analysed a random sample of 30 reports and found that 15 mentioned the notion in a positive way. For example, 'tutors carefully select a good range of learning materials directly relevant to the needs, interest and learning styles of the learner'.

What's wrong with this? Just the simple fact that, in reality, it appears impossible to assess learning style and may not even be helpful for either the learner or the tutor.

This article looks at three key issues. It provides an overview of current research on learning styles and describes best practice in their use:

- The menu: learning styles come in different brands – which will you choose?

- The research background – how truly is it reflected and how much is hype?

- Best practice – how do learning styles help us to teach?

The menu

If you are feeling brave, put 'learning styles' into Google and see what you get. You'll be offered plenty of opportunities to understand your own learning style, usually by completing a questionnaire, and usually it'll be free. Depending on which one you fill in, you could end up being told that you are:

- a visual, auditory or kinaesthetic learner

- a mix of activist, pragmatist, reflector or theorist

- mainly active and reflective, sensing and intuitive or visual and verbal

…or one of several others.

Then again, if you get interested, you may discover Howard Gardner's work on multiple intelligences (Gardner 1993), which also describes different ways of learning that seem to depend on the kind of person you are. Some of his followers will encourage you to develop a profile based on eight different types of intelligence. So, you could be a mix of:

- logical/mathematical

- linguistic

- spatial

- musical

- bodily/kinaesthetic (dance, rhythm, motion)

- interpersonal (you learn best with others to bounce things off)

- intrapersonal (you prefer being on your own)

- naturalist (you're in tune with nature).

If you are really determined, you may also find out about the 'need to achieve' (n ach), 'deep' and 'surface' learning, motivation and the issue of self-esteem – but none of those will be on the first five pages in your Google search.

So, if you're a good trainer who wants to get an overview of the learning styles you're dealing with, you may use a battery of tests that tell you that a learner is an activist, auditory learner with bodily learning tendencies who prefers to work alone and is a 'surface' learner who needs extrinsic motivation. Interesting, but is it useful? What will you actually do about it? And in the end, how true or accurate is it? Is it not possible that the same learner may get different results depending on what they are learning, where they are doing it and how comfortable they feel about it? Given that the results are based on subjective judgements which learners make about themselves, how can it be claimed that they provide objective measurements? Do we need objective measurements?

A report by the Learning and Skills Research Centre, *Should we be using learning styles? What research has to say to practice* (Coffield *et al*. 2004), describes an extensive review of research and writing on post-16 learning styles and discusses the implications for teaching and learning. The authors were surprised by the enormous volume of research literature. As well as thousands of references and papers, they identified 71 models of learning style and, from these, selected 13 for detailed study. The 13 were not chosen at random – models had to be based on an explicit theory, the instrument to have been widely used and the research to have been widely quoted and central to the field as a whole. They conclude that there was:

> marked variability in quality…and it matters fundamentally which instrument is chosen. The evaluation showed that some of the best known and widely used instruments have such serious weaknesses (e.g. low reliability, poor validity and negligible impact on pedagogy) that we recommend that their use in research and practice should be discontinued.

Only three of the models came close to meeting the minimum standards for consistency, reliability, construct and predictive validity. They were:

* Allinson and Hayes' *Cognitive Styles Index*

* Entwhistle's *Approaches and Study Skills Inventory for Students*

* Vermunt's *Inventory of Learning Styles*.

Interestingly, none of these is in common use in work-based learning. Indeed, it is doubtful that many practitioners will ever have heard of them. All this suggests that there are three key questions that must be addressed:

* What is a learning style? Is it a personality trait? Is one style better than another?

* Are learning styles 'fixed'? Are there risks associated with labelling?

* If we are going to identify learners' 'learning styles', how can we ensure that we use instruments that are valid and reliable and that we fully understand the background, issues and implications?

The research background

There are widely differing views about the extent to which an individual's learning style is a fixed personality trait or whether previous learning experiences and other external factors create preferences and approaches. Proponents of the latter view tend to use the term 'learning approach' or 'strategy' to emphasise behaviour that involves an element of personal choice, even if this is an unconscious decision on the part of the learner.

At one extreme, Gregorc (1984) believes that styles are God-given and that to work against one's personal style will lead to ill-health. At the other, Pask (1976) and Entwhistle (1984) suggest that styles may vary depending on the context and the learning task in hand, and Honey and Mumford (1976) stress that, once you have identified your preferred learning style, you should develop others in order to ensure a balanced approach.

Noel Entwhistle, a professor at the University of Newcastle, uses the term 'learning strategies' and developed the idea of 'deep' and 'surface' learning (Entwhistle 1984). He defines deep learning

as being about searching for meaning, and surface learning as being more concerned with memorising facts or procedures.

A 'deep' approach is characterised by:

- comprehension learning – where the learner looks for understanding and meaning, and uses questions and analogies to help gain this understanding

- intrinsic motivation – where the learner is interested in learning for its own sake

- openness – where the learner is open to new ideas, and sees their learning as an opportunity to question values

- internality – the learner is driven by the desire to structure their own learning.

A 'surface' approach is characterised by:

- operation learning – the learner adopts a step-by-step, logical approach with an emphasis on finding and memorising facts

- extrinsic motivation – the learner sees learning simply as a way of gaining qualifications or promotion

- fear of failure – the learner tends to be anxious about learning and concerned that they may not do well

- being syllabus-bound – the learner relies on clear instructions, structure and a defined syllabus.

This implies that what matters is the way the learner tackles their learning rather than the way the information gets into the brain through the senses. Another key concept comes from the work of Pask, who looked at the importance of developing 'versatile' ways of learning. Pask found that the most successful learners adapt the way they learn to what they are learning – in other words, they deploy learning styles deliberately as part of a strategy; they do not simply 'have' them as a part of a personality trait that is impossible to change. This suggests that really effective learners are versatile and can use different learning modes, not only for different learning tasks but also within the same task, at different stages.

What about self-esteem?

Learning styles are not the only factor in effective learning. Not only is there no consensus as to what they are, or how important they are; it is also clear that several other factors have significant importance in supporting effective learning. Self-esteem is perhaps the most important of these. McCarthy and Schmeck (1988) claim that there is a significant relationship between self-esteem and choice of learning strategies, and that learners who use more sophisticated strategies have higher self-esteem, and Lawrence (1988) found a positive correlation between self-esteem and achievement. People with low self-esteem lack confidence in their ability to succeed in learning. Tackling that is at least as critical as identifying learning styles, and in our opinion it's probably more important. Recognising it and helping someone build their confidence through a mixture of guidance, support, patience, challenge and reflection can be life-transforming and can help learners to adopt more versatile and flexible learning techniques.

Self-esteem is only one of a number of other factors that influence how an individual approaches learning. Learners are also powerfully influenced by their:

• confidence about their ability to learn

• previous experience of learning as positive or negative

• need for social interaction

• need for guidance and support.

How can learning styles help our learners?

There can be only one reason for paying attention to learning styles. We must be convinced that identifying an individual's learning style will lead to their experiencing greater success and achievement in their learning programme.

So, given the enormous amount of research and the inflated claims and sweeping conclusions made by some originators of learning styles inventories – this is a very lucrative commercial business – how can teachers and trainers be confident that they are using a valid and reliable instrument, and how can we use the results in a way that is likely to encourage more effective learning on the part of our learners?

There is a revealing case study in Coffield describing a communication session in which a group of catering learners are given a questionnaire on learning styles, which they dutifully complete. What happens next? Coffield reports that:

> *This occasion is the first and last time the students consider their learning style during the 2-year course. The questionnaire has no identifiable source or author, no accompanying explanation other than the brief descriptors of the four styles, and no indication at all of what teachers or learners should do with the information. The event makes it possible for the course leader to claim in the self-assessment document for the forthcoming inspection that the college 'diagnoses learning styles'. Six months later, inspectors commend this practice in their report.*

Firstly, it is essential that the use of learning styles inventories as part of the development of a learner profile is underpinned by greater understanding and knowledge of the field. Practitioners must adopt a critical attitude that recognises the strengths and weaknesses of particular models and instruments – too often, they are used in a completely uncritical manner.

Much of the research suggests that talking with learners about the way they learn is helpful and positive. Learning styles instruments can provide tools that foster self-knowledge and encourage more self-aware reflection – 'metacognition' (being aware of one's own mental processes). They can provide a focus for teachers and learners to talk more meaningfully and productively about learning and help learners to gain insights that enable them to make choices about how to learn. They should not be a way of labelling people, of setting in stone what they can and cannot do.

Once a person is confident that they can learn, and is aware of what helps them and what hinders them, knows how and when to ask for help and how to make good use of it when it's offered, they are well on the way to learning success. In the end, learning styles are best used as part of the process whereby learners gain self-knowledge and the ability to reflect on their experiences of the learning journey.

References

Coffield, F., Moseley, D., Hall, E. and Ecclestone, K. (2004) *Should we be using learning styles? What research has to say to practice*. Learning and Skills Research Centre, London

Entwhistle, N. (1984) *Styles of teaching and learning*. Wiley, Winchester

FEFC (1996) *Inclusive learning: principles and recommendations – a summary of the Learning difficulties and/or Disabilities Committee*. Further Education Funding Council, Coventry

FENTO (1999) *Standards for teaching and supporting learning*. Further Education National Training Organisation, London

Gardner, H. (1993) *Multiple Intelligences: The Theory in Practice*. Basic Books, New York

Gibbs, G. (ed.) (1994) *Improving student learning: theory and practice*. Oxford Centre for Staff Development, Oxford

Green, M. (2002) *Improving initial assessment in work-based learning*. Learning and Skills Development Agency, London

Gregorc, A. F. (1984) *Style delineator; a self assessment instrument for adults*. Gregorc Associates, Columbia

Honey, P. and Mumford, A. (1976) *The manual of learning styles*. Peter Honey Publications, Berkshire

Lawrence, D. (1988) *Enhancing self esteem in the classroom*. Paul Chapman Publishing, London

McCarthy, P. and Schmeck, R. R. (1988) *Students' self concepts and the quality of learning in public schools and universities*. In Schmeck, R. R. (ed.), *Learning strategies and learning styles*. Plenum Press, New York

Pask, G. (1976) *Conversation theory: applications in education and epistemology*. Elsevier, Oxford

Schmeck, R. R. (ed.) (1988) *Learning strategies and learning styles*. Plenum Press, New York

Winne, P. H., Woodlands, M. J. and Wong, B. Y. L. (1982) Comparability of self concept among learning disabled, normal and gifted students. *Journal of Learning Disabilities*, **15**

Martin Good is a director of Cambridge Training and Development Ltd, a member of the Tribal Group plc. He has many years' experience in the design and development of learning resources in various media – paper, audio, video and ICT. CTAD has won a number of awards for its work in the areas of adult literacy, numeracy, ESOL and key skills.

Anna Rossetti is a director of Learning for Work. She has carried out research into learning styles with adult learners. She is one of the authors of *Learn for your life* (FT Prentice Hall, 2000) in which she wrote the chapters 'Learning with style', 'The creative learner' and 'The capable learner'.