

HOW I LEARN

Mike Ollerton

'It makes no sense to decide how one is going to teach before one has made some study of how people learn'. E Sotto [1, page 29]

The title for writing offered to me by Derek and Barbara is indeed apt. This is because I seem to spend so much time planning for teaching, that being asked to stop in my tracks and address the title 'How I learn' is, I find, very useful.

As I begin to write an initial question occurs: why might anyone else be interested in reading about how I learn? Several thoughts begin to bounce around and I need to capture them all before my short-term memory lets me down – again! Time to create a memory space –

Sotto . . . von Glasersfeld . . . Gattegno and asking questions . . . finding out how others learn . . . asking those I teach this question . . . Mason and noticing . . . being explicit about what I notice . . . last Friday . . . cement mixers and a phrase coined by Steve, a builder: 'a 2-ton guess' . . .

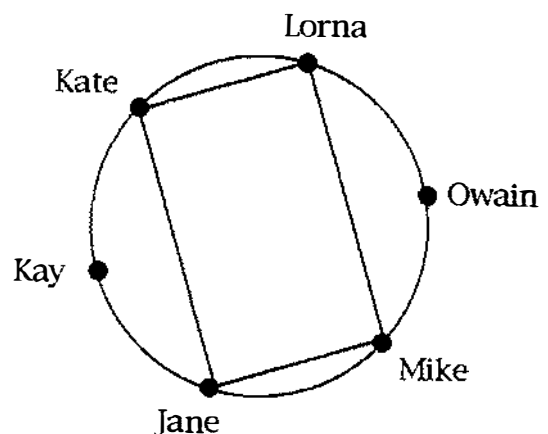
One thing I have learnt recently is a need to capture my thoughts if I am going to be able to remember them and then make sense of them, particularly when it comes to writing something. Now I have unloaded my initial thoughts at least I can stop worrying about forgetting them and subsequent ones can be added. Having captured them I can rearrange them; beginning my writing with Sotto seems appropriate; the power of the word processor!

How I learnt something on 14th July

I was working with a small group of staff from St Martin's College, together with one person from the Cumbria Development Education Centre (CDEC). The content of the session was to explore issues about 'active learning': whether or not active engagement enhanced learning and why. In order to work on these questions I set up some active learning situations and invited colleagues to do two things. The first was to take part in the activities and the second was to work on their 'noticing'. 'The notion of noticing is critical in any profession, for if I do not notice I cannot choose to act differently. If I am not sensitive to some feature I can do nothing

about it. So, in order to develop my professional practice I need to be developing and refining my sensitivities, extending the things I notice about my practice' (see [2], page 19).

My intention was to ask colleagues, during an activity, to work on their awareness by noticing what they were focusing on with regard to the usefulness or otherwise of the activity. One activity involved us sitting in a 'circle' and passing a ball of string according to different 'pass' rules. So, for example, a pass rule of missing out every other person, or missing two spaces (+2), produced an equilateral triangle. My intention had been only to explore single pass rules; indeed, I had not thought about combinations of pass rules before – well not until Jane suggested that we could also make a rectangle. At first I thought she must have misunderstood what I was asking the group to do; had I intervened at this point I may well not have learned something new. However, because I did not intervene and because Jane was quite right, that using a pass rule of (+1 then +2) or (+2 then +1), a rectangle is formed.



But more than this, a whole new set of possibilities emerged and I can start to explore other combinations of rules for different numbers of points on the circumference.

So how exactly had I learnt? On this occasion it had been as a consequence of not 'correcting' somebody who appeared to have misunderstood something; holding back and seeing what emerged enabled me to learn something new (to me).

How I learnt something on 15th July

I am fortunate enough to employ a builder called Steve and he offered me an interesting phrase one day when I asked him about 'real-life' contexts – about how he estimated the amount of sand and hardcore to order. His response was that it was all based upon a '2-ton guess'. Anyway, to the main point of this particular anecdote: on Saturday I was labouring for him whilst he used his marvellous skills to build a stone wall. At one point I needed to unload the cement mixer for some footings and remembered that when Steve did this he kept the mixer barrel turning, somehow managing to insert his shovel and pull out a shovelful of mix. When I tried this I found that I got the shovel caught up with the blades inside the barrel and, although I didn't quite sprain a wrist, I did conjure up a cartoon-type image of me hanging onto the shovel and being spun around mercilessly by the mixer!

I clearly had something to learn and in this context there was only one teacher. Steve patiently demonstrated the technique and, watching him, I thought 'I could never do that'. However, not to be thwarted, I did try and to my surprise got better and better. The technique was to aim the shovel at the centre of the mixer and to keep it fixed whilst the mixer turned, then bring the shovel out taking care not to alter the angle of the shovel. There are four issues here about how I learn:

- to recognise a need.
- to be given a practical demonstration.
- to do it myself.
- to find the confidence to try it out.

'At the centre is active engagement: if you want to learn how to ride a bicycle, you have to ride a bicycle. If you want to learn how to bake a cake, kiss a girl, understand thermodynamics, or kiss a boy, you have to do these things. Explanations from somebody who already knows can help. But no matter how good the explanation, the best way to learn is when we are actively engaged.' [1, page 22]

The parallels with learning mathematics relate to desire (or need), having a supportive teacher, working first hand on mathematics, and building the confidence to know that I am capable of understanding more complex mathematics, given a supportive environment. As I write I am aware that the method described above could be seen as an 'apprenticeship' model and von Glasersfeld comes to mind: . . . 'the art of teaching has little to do with the traffic of knowledge, its fundamental purpose must be to foster the art of learning'. [3, page 192]. Was Steve 'trafficking' knowledge? Should I have spent more time trying to work out the technique for myself?

The balance is about who needs to know anything and how the context impacts upon a need to know. At the fulcrum is an individual's perception

of need. Sometimes I need to take time to work something through for myself. At other times I need some information or some help in order to take further steps. Trying to make sense of something requires me to work on my questioning technique. To quote Gattegno: . . . 'there is only one instrument in research in order to find answers. One instrument: and that is to raise questions, to ask questions. To question is the instrument. And if you don't question, then don't be astonished that you don't find anything.' [4, page 11]

I am looking forward to reading MT173, to see how others describe how they learn. Derek and Barbara are clearly in the business of asking questions and have provided me both with a potentially powerful tool to add to my teaching strategies and a stimulus for exploring how I learn.

References

- 1 E Sotto: *When teaching becomes learning: a theory and practice of teaching*, London, Cassell, 1994.
- 2 J Mason: *Personal enquiry: moving from concern towards research*, The Open University, 1996.
- 3 E von Glasersfeld: *Radical constructivism: a way of knowing and learning*, London, Falmer, 1995.
- 4 L Brown, D Hewitt and D Tahta (eds.): *A Gattegno anthology*, ATM, 1988.

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David Wheeler (Editorial, MT56, 1971)

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