



All roads lead to Rome

Under this heading, Brewer's *Dictionary of Phrase & Fable* says 'All efforts of thought converge on a common centre'. For change ringers, once past worries about bellhandling, the main 'efforts of thought' are learning and ringing methods. Does this phrase tell us anything about method learning? Do all ways of learning methods 'lead to Rome'? Are the routes equally direct? If you set off in the 'wrong' direction, how long must you wander before eventually getting where you want to go?

Method learning has a dimension with no geographical equivalent – how well you learn. Either you are in Rome or you are not. You can't be there on a good day, but in Paris if you lose concentration. So as well as asking how, and how easily we learn methods, we should also ask how well we do so.

In October, *The Learning Curve* described how one person learnt to ring Cambridge Surprise Major 'without the blue line'. *The Learning Curve* in September 2000 (Vol 1 Chap 15) listed five ways to learn methods:

- Treble passing
- Order of work
- Blue line
- Place notation
- Structure

That article also included the personal story of how another ringer's method learning had evolved, and although quite different, there are some parallels between the two stories.

- Both were based on a progression through methods of increasing complexity.
- Both talked a lot about structure.
- Both described journeys of self discovery, rather than being taught.

What is 'learning'?

The Concise OED defines 'learn' as: 'Get knowledge or skill, by study, experience or being taught, commit to memory ...'. One could 'get knowledge' by buying it in a book or on a CD, but that would not be learning because it would still be external rather than internal. The key to learning is internalisation, hence the reference to memory. But storage is not enough - what really matters is being able to access the right information when you need it (the skill part) which reminds us that different people have different mental skills to draw on.

Words and pictures

It is known that some people are better at spatial tasks while others prefer verbal tasks, so we might divide method learning techniques into two groups: blue lines and structure diagrams (grids) which are pictorial, and work sequences and rule sets, which are verbal. In fact that is an over simplification - what gets put on paper is quite often not what goes on in people's heads. Sit next to someone 'learning a blue line' and (s)he is probably muttering a string of words like

3-4 down, pass Treble, snap lead, ... and people who prefer to think of a work sequence often draw it as a work circle.

The blue line, is a very efficient shorthand notation for writing down what in words would take a lot more space. On paper, it is also easier to scan visually to find particular information. Learn the language (the names for the kinks and wiggles), learn to read place from the vertical alignment, and you can save a whole lot of time and effort reading and writing what in your head you still use as strings of verbal descriptions.

Of course, people who can memorise spatial patterns directly have an added advantage, but for many of us, learning the method still means memorising the sequence, whether we write it down in words or in squiggles.

Sequential v non-sequential

A bigger difference (not just about notation) is whether the description is sequential. Think how to navigate between towers A and B. Sequential information is a string of instructions (right out of the gate, third left, straight over the cross roads, left at the fork). The same sequence can be written down pictorially, and it sometimes is in car rallies, as shown in Figure 1.

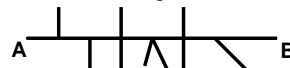


Figure 1: Sequential route information

Alternatively, you might be given a map, with both towers marked, like in Figure 2. It doesn't actually tell you where to go, and it has a lot of extra information (some you don't need) but many people find it as easy to use as a string of instructions, and many prefer it.

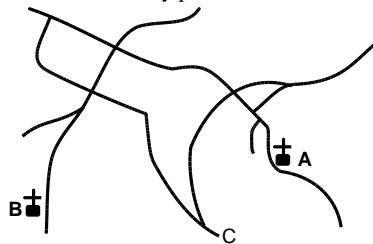


Figure 2: Route map

Think how you use Figure 1 – count off the junctions as you pass them, and turn where indicated. But what if you missed the first left (a narrow cul-de-sac just after a bend – see Figure 2)? That would put out your counting, so you turn in the wrong place and go all round the village before leaving on the wrong road at C.

Now think about using Figure 2. First you must work out where you are, where your destination is, and how best to get between them. If you are navigating as a passenger, you probably look for the shortest route, but if you are driving on your own, you might look for the simplest, even if it is a little longer. Having done the preparatory thinking, you set off.

The bend after the church tells you to expect the cul-de-sac. Even if you miss it, the right turn, the cross roads and double bend confirm where you are, so turning left at the next cross roads you know you are on track. Even if your driver shoots past the cross roads, you know you can take the next left to rejoin the road to B.

Analogies are not perfect, but this example illustrates how a single thread of information that normally 'works', can fail if you make a slip. In contrast, the non-sequential, inter-linked information in the map needs a bit more thought, but lets you detect and recover from errors. It

doesn't prove that the map is always better. Also, in your head, you probably mix both methods, converting the map information into short sequences of instructions as you go.

Method structure

When ringing a method, you are following a path, but the roads and junctions are invisible, with no fences to constrain you. There are landmarks (the positions of your fellow ringers) but they all move around. It's like formation dancing rather than driving along a road.

The essence of a method is the way that each bell's work fits in exactly with all the others. To learn a method with no knowledge of this clearly misses something. You can look at the structure in three broad ways. Last month described identifying major fragments of line (like sets of places and runs-through) to see how they fit together. Another is to look at the grid, ie the pattern of all the lines. A third (minimalist) approach is to learn where each place is made, and then deduce the rest from that (see *The Learning Curve* April 04).

Which approach proves more productive depends partly on the methods. The more regular structure of methods like St Clements or Kent favours the grid base approach. So does the rule for calls in Grandsire (based on being above or below 3rd place) or for places in Kent (above or below the Treble).

Methods with more natural clusters, like Cambridge or Yorkshire, favour learning how the clusters all fit together.

The minimalist method can be demanding – you need to work out more on the fly – but it is useful for ringing simple methods like Little Bob in hand, if you ring by patterns anyway.

It is always worth looking at the structure of a method from several angles to see what useful information you can glean.

Learning style

We could discuss pros and cons at length, seeking the 'ideal'. Unfortunately, people have different 'learning styles'. Some think more readily in pictures, and even have 'photographic memory' while others find words easier. Some crave step by step instructions, while others like to see 'the big picture'. This all affects what we each find easy. Don't just opt for 'whatever seems easiest' though. 'Easy' depends as much on thought habits (what you've done before) as on how your brain is wired, so be prepared to put effort into more than one approach, so you develop an effective style of method learning. If you find some approaches work better with some methods than with others, that's OK, so long as the resultant combination gives you a robust mental model of how the methods work, and enables you to survive mistakes (yours) and disturbances (other people's). Your mix of verbal and/or pictorial representations should include at least:

- Knowledge of where all bells start
- Some knowledge of the structure (how work fits together)
- Some awareness of other landmarks (where the Treble is, what happens at half leads, etc)

For more advice, see *Learning Methods*.

Tail End

The Learning Curve, Vol 1 - 1999-2001 and *Learning Methods* are available from CC Publications.