

Guiding processes of learning and choosing forms of teaching

Work file 2: Why chalk and talk is not enough, or “taught ≠ learned” and “learned ≠ applied in real life”

Teachers who have been trained along traditional lines of teaching tend to overestimate the impact of spoken instruction on their students – “taught is learned”. This view is particularly common at secondary level, where teachers often face curricula packed with large amounts of complex knowledge. Then it seems tempting to teach the way that seems fastest and most effective – the teacher lectures, the students listen, and a history teacher may think, “Now I have finished the 20th century.”

But do students learn by listening to lectures? And have they all learned what the teacher had in mind – what he or she wanted them to learn?

“Taught ≠ learned”

From a constructivist perspective, the answer to these questions is no. “Taught ≠ learned.” Learning is an individual process. The students literally construct their individual systems of knowledge. They link what they already know and have understood to new information, using concepts, creating ideas, judging in the light of their experience, etc. They seek for meaning and logic in what they learn, they define what is relevant and worth remembering, and what is not, and can therefore be forgotten.

And they also make some mistakes.

A teacher lecturing to an audience of 30 students should therefore be aware that in the students’ minds, 30 versions of the lecture are being produced and integrated into the students’ systems of meaning – cognitive structures, as Jerome Bruner, a noted professor of psychology, called them.

But learning is not only construction of meaning, but also deconstruction of errors. Young students, for example, may believe that night comes because the sun sets, because that is what they see. Of course teachers are right in attempting to correct this way of thinking. From the learner’s point of view, it is a difficult, and sometimes unpleasant effort of deconstruction. The teacher’s lecture therefore may be a piece of new information for one learner, while another becomes aware of an error or misunderstanding that needs to be corrected.

From a constructivist point of view, we must therefore expect faults of logic and thinking and misunderstanding of information to be the rule, not the exception – not only in our students’ minds, but also our own.

A revision of our cognitive structures is therefore more complex than merely substituting “old knowledge” by “new knowledge” that a teacher can bring about by “telling the students”. Rather, it is a process continuing for a longer period of time, in which contradicting sets of ideas and notions compete with one another – and the students undertake the effort of deconstruction, not the teacher.

“Learned ≠ applied in real life”

Teachers who attempt to correct students’ mistakes will therefore find that “telling” them what is “right” is often not enough. They face the following problems:

- Students do not seem to “listen”: how do I deal with the problem that students often do not change their wrong ideas after they have been taught the correct facts, concepts, etc?
- “Students learn like parrots”: how can I deal with the problem that school knowledge coexists alongside a sphere of naive thinking – including errors in logic and thinking, opinions drawing on incorrect information, reference to everyday experience – that the students do not link together? They memorise their school knowledge for tests “like parrots”, and then forget it.

Every teacher knows these problems. To overcome them, even constructivist learning is not enough. Students must do something with what they have learned – they must apply it. For a teacher this means, for example:

- no teacher’s lecture without a follow-up task;
- listen to student inputs, for example presentations, to assess their learning process and achievement;
- make students responsible for their development, for example in settings of task-based learning;
- listen to student feedback: what I found particularly important was ... I learn best when...

The teacher’s task is to provide adequate opportunities for the students to learn, and to assess and communicate with the students what works well and what doesn’t. Constructivist learning, including deconstruction, and follow-up application tasks take time. Therefore the teacher – perhaps together with the students – must make a choice what topics are worth devoting time to. “Do less, but do it well.”