

*By Dr Geoff Beech
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Deep learning for transformation: Exploring Lehrkunst

There has recently been much hype about the wonders of the Finnish education system with educators and politicians alike wondering which of their specific educational practices may be implemented in the Australian school system.

Realistically, however, this would be an impossible task since their system of practices does not exist in a void but, rather, it is grounded in—and flows out of—very particular worldviews. In all honesty, to truly embed the Finnish system here, we would also have to transport the underlying Finnish worldview as well.

Interestingly, the educational underpinnings in Finland are not only a product of their unique culture but, until recently, have also been built upon a strong biblical worldview. Indeed, a teacher from Finland has said that this had been the real reason behind stories of unsurpassed excellence and the flourishing students in Finland (A. Silova, personal communication, April 14, 2016). Interestingly, Silova also mentioned that the quality of the education system in Sweden seems to be dropping following experimentation with individualistic constructivism. She expected that a similar introduction that has begun in Finland would have a similar impact as the focus was moved from teaching to student-constructed learning.

Certainly, we should always be encouraged to delve deeper into new teaching practices that can help our students to thrive and retain the greatest and most important parts of their learning. Such ‘success’, as it were, would not be measurable simply in regurgitated facts but evidenced in a thirst for truth, particularly, in light of God’s truth, in all of His creation. This type of deep learning requires an overhaul of the underlying worldview assumptions students hold.

If we have thought about the idea of being Christians who ‘teach Christianly’, and if we understand the concept of an underlying worldview, we will appreciate just how difficult it can be to change these foundational assumptions in a significant way in our students. Once an idea has become embedded at the level of basic assumptions about our world and, therefore, is part of the schema a student has that helps them make sense of the world, then it tends to resist change.

One example can be seen in research done at MIT and Harvard University in the USA in the 1980s and 1990s which showed that graduates of their science and engineering courses still held fast to misconceptions, even some rather bizarre ones, regarding basic scientific principles. Some highly trained students were shown to have no real idea of the simple fact that electric currents consist of electrons flowing in a circuit despite having passed exams involving complex electromagnetism formulas. It was found that at some stage in their early education, perhaps even before reaching school, they had developed a false mental picture, which had become a deeply embedded assumption that persisted through all of their education.

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Educational psychologists have found in their research on changing misconceptions, that one of the best ways is to go back to scratch and ‘start over’ in rebuilding correct assumptions. This is where one specific practice borrowed from European culture—*Lehrkunst*—could be particularly useful, especially when aligned with an all-encompassing biblical worldview.

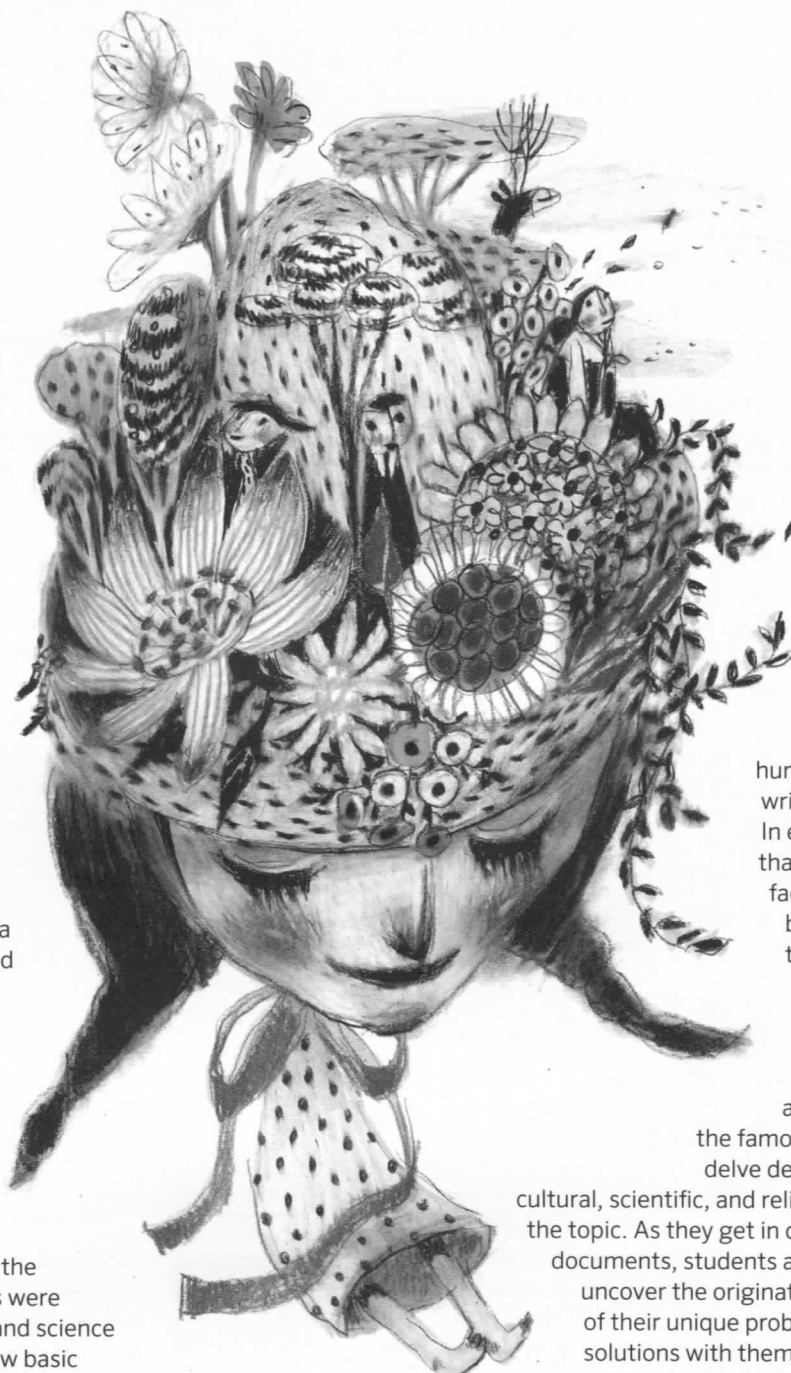
Lehrkunst is a German word with no direct English equivalent in terms of the connotation given it by educators in Europe, but it is sometimes taken to mean ‘the art of teaching’. The theory and practice began in Switzerland and Germany and has spread north to the Netherlands and beyond. Hans Christoph Berg, one of the key educators working on the idea of *Lehrkunst*, and others, have written mostly in German

and Dutch, so very little is available in English.

Their method, *Lehrstückunterricht*, rejects the shallowness of education that teaches only to a test, particularly standardised tests, or that sees students primarily as sponges who will simply soak up data as information. Instead, a system of learning was developed that takes students deeper in relevant topics than is typically allowed in traditional education. One of the key features of this concept is to realise the connectedness between 'facts' within their historical context and their relation to the thought processes of real people. As students explore the realities within which discoveries were made, theories were proposed, and science was advanced, students build new basic assumptions with the help of their teachers who act mainly as facilitators of this process.

For example, in studying art, questions can be raised, and should be formulated by the students themselves, regarding not just the paintings of Claude Monet, for instance, but also regarding his thinking processes and those of other artists, politicians, philosophers, and religious leaders at the beginning of the Impressionist movement. What was he painting, yes, but also what was he communicating, how had his painting evolved, and how did his work relate to that of his contemporaries? What problems did the Impressionists want to solve and what processes did they go through to solve them? What was happening in the church and religious communities at this time as a result of these societal underpinnings?

Examples of other topics might include Michael Faraday's *The Chemical History of a Candle*, Jost Bürgi's discovery of



the logarithm, the creation of Mozart's Figaro, the innovation of human flight, or the writing of a great novel. In each case, rather than only teaching facts and then testing before moving on, the teacher acts as moderator between the originator and the students, assisting them as they question the famous model and delve deeply into all social, cultural, scientific, and religious aspects of the topic. As they get in contact with original documents, students are encouraged to uncover the originator's perspective of their unique problems and explore solutions with them. Through the use of problem-solving skills and critical thinking as applied by the originator, students acquire a much deeper, holistic understanding of a particular piece of knowledge and how it came about.

The very moment of the originator's insight was always the climax of a real dramatical process—a real, historically relevant problem. In *Lehrstückunterricht*, the 'dead' facts of knowledge are reconsidered as 'living' processes and bringing these processes back to life for the students is elementary for the structure of the unit. (Michael Jänichen)

Obviously, it takes a significant time commitment to adequately do this and would be impractical for every fact in every subject of the curriculum to be treated this way, so it would be wise to choose a number of significant themes or topics to apply *Lehrkunst* in one's classroom on a regular basis. In Europe, a growing number of teachers have developed and shared their lessons, or units, on specific

themes chosen from significant events, major discoveries, or key turning points in history, philosophy, politics, and so on. (If you read German you may want to explore these at <http://www.lehrkunst.ch>.) In Australia, perhaps this could become a CEPA project.

Although not known by the term *Lehrkunst*, some Australian schools have implemented history projects related to the World Wars that do not involve learning from textbooks as much as researching real people and real events through a variety of other sources. By examining historical documents and books, doing web searches, and conducting interviews, students identify wars and battles, people from the local community who participated or died there, and the direct consequences of these events on their families in Australia. In some cases, students have even travelled to Europe or the sites of other battlefields to see the actual places linked to their research, visiting historical monuments and graves, and taking photos back to the descendants in Australia. Such learning, involving people and relationships, has a much deeper impact on students' assumptions than simply committing facts to memory.

While the *Lehrkunst* depth of understanding may not be possible for all topics, it does highlight the need to create patterns of learning, or 'schemata', that truly make sense to the learner, as indicated in recent educational research:

Schemata, or schemas, are the basic units by which we organise and structure our knowledge. Whereas ideas might be acquired somewhat randomly or accidentally, it is at the level of the schema that deeper meaning occurs, and the grasp of an 'overall big picture' becomes possible. Schemata provide the necessary frames we need to make sense out of ideas and facts that would otherwise exist as isolated islands of knowledge. (Hattie & Yates, 2014, p. 130)

As well as correcting misconceptions, this deeper understanding within a schema has obvious benefits such as setting students up as life-long learners. At the moment, time and curriculum constraints can make this a more difficult approach within school classrooms, especially since modernism has led us down the standardised test track and we can only hope for an eventual revolution when deep learning methodologies will be accepted more readily by governments or departments of education in the English-speaking world. Until then, however, there can be some particular benefits derived from even a limited application of *Lehrkunst* within the Christian classroom.

We know that in order to fully understand a biblical text we must look deeply at the author, the situation in which he was writing, the audience, the language used, and the connectedness of the text to the grand narrative of God—from Creation, through the Fall, to Redemption and the Fulfilment. Likewise, in *Lehrkunst*, study should involve relationships with real human subjects (i.e., the Claude Monets) in order to develop an empathetic understanding of them and their place within God's grand narrative.

Many will have heard David Smith, when presenting conferences in Australia, mention teaching practices similar to *Lehrkunst*. David used a personal example of teaching a novel where he has promoted the idea of deep reading—reading to understand the author and his or her point of view. Similarly, he mentioned teaching languages by using

examples of real people in real situations so that students could explore the history and relationships of people using that language. What a privilege it is, as Christian teachers, to bring God's grand narrative alive, at all points in history and through all subjects in the curriculum, for our students!

For this very reason the National Institute for Christian Education has shamelessly promoted the need for Christian teachers to comprehend the foundations of biblical theology—the understanding of the whole scriptural narrative as the gospel message and the need to site individual verses or passages within that narrative to fully understand their place in the big picture. The Bible seems like a complex compilation of writings yet, through a *Lehrkunst* approach, and led by His Holy Spirit, we can develop a deeper understanding of God's complete story for us and be enabled to involve our students to acquire a paradigm-changing biblical perspective regarding any topic.

The resources and training provided by the National Institute are valuable tools to help gain the knowledge necessary for understanding God's grand narrative and how to share it through a more *Lehrkunst*-like approach in our classrooms.

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References

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