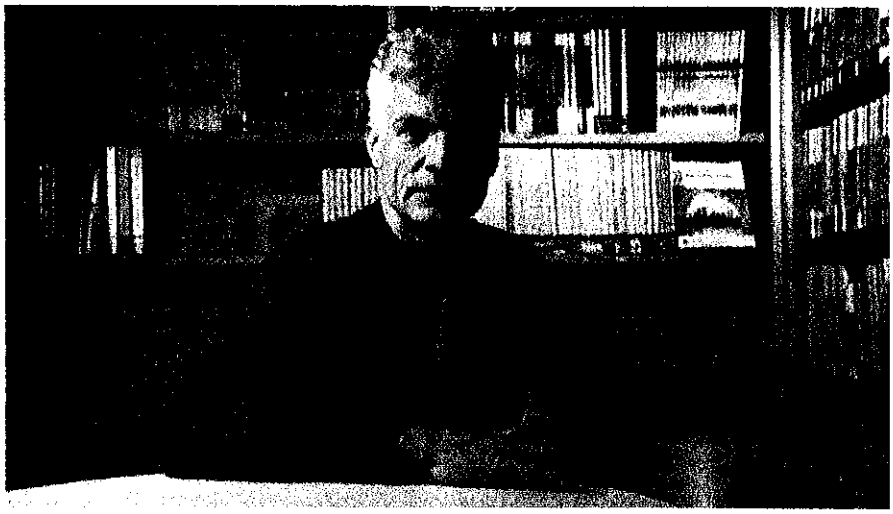
'Schools, please don't ditch rote-learning just because Pisa's boss tells you to'

By Tom Bennett 25 April 2018



Pisa says rote-learning is holding back our schools – but memorisation and drilling are key building blocks of learning, writes one educationalist

"Alice laughed. 'There's no use trying,' she said, 'one can't believe impossible things.'

"'I daresay you haven't had much practice,' said the Queen. 'When I was younger, I always did it for half an hour a day. Why, sometimes I've believed as many as six impossible things before breakfast.'"

Through the Looking Glass, 1871, Lewis Carroll

The OECD, I fear, is not feeling well. I say this because it appears to be asking us to believe several impossible things, and not just before breakfast.

Speaking last week in New York, Andreas Schleicher, the head of education at the Organisation for Economic Cooperation and Development, said Britain "tops the international league table when it comes to the amount of low-value rote-learning in its schools". He also said the UK had 'a lot to learn' from countries like China, which had embraced a skills-based approach to education.

This is both odd, and unsubstantiated. Worst of all, it indicates that the OECD, through its pronouncements, is rapidly becoming a threat to the global educational arena, undermining the ability of countries to develop systems that improve educational

outcomes and promote equity.

First, it is an odd thing to say, principally because the Programme for International Student Assessment (Pisa), which is run by the OECD, frequently produces evidence to suggest that countries which lean the most heavily on inquiry learning frequently demonstrate the worst outcomes. For example, the Pisa 2015 report into science teaching: its own data clearly showed that the more inquiry was utilised as a learning strategy at a national level, the worse the science results. Conversely, the more systems were associated with teacher-directed instruction, the better the Pisa science score. This is unsurprising. There is a wealth of research that shows that good explicit instruction (i.e., well-planned, sequential, consisting of regular student interaction and feedback) is frequently an optimal strategy for effective teaching.

The OECD contradicts its own evidence

So Pisa appears to gather data that says one thing, and then the OECD's Red Queen of education says another. It's almost as if there was an intention to promote an ideological position rather than an evidence-informed one. But that can't be right.

Secondly, it appears to me to also be an unsubstantiated claim. As Louisa Jurkiewicz, an educational development officer in Guernsey, pointed out on social media, Schleicher's evidence base for this apparently counter-intuitive claim about the UK rests on the following:

"Pisa 2012 asked 15-year-olds about their approach to learning mathematics (just mathematics). They answered four multiple-choice questions, each with three options. In each question, there was: a) a memorisation strategy; b) an elaboration strategy (like looking for an alternative solution); c) a control strategy (like making a study plan). The memorisation strategies were broken down into: a) rote learning; b) drill; c) practice; d) repetitive learning – with one being an option in each of the four questions. They then coded the answers to create a 'memorisation index' and put countries in rank order. The overall rankings include all four memorisation items, the number on the side is the percentage choosing the rote learning option."

So the questions were aimed at understanding the "students'" approach to learning. And, somewhat importantly, this is self-reported. Such a methodology is heavy with problems. In no way can we say that this is a reliable or authentic model of how students actually learn, let alone what the system promotes, or indeed if we have a coherent system at all.

Such a broad statement about the way teaching actually occurs in classrooms can't be made from the – in my opinion – very weak and unreliable data offered here. Carl

Sagan, the American astronomer, popularised the aphorism, "extraordinary claims require extraordinary evidence". Sadly, the evidence for this extraordinary claim isn't even ordinary. Even sadder still, we see this trope trotted out regularly by prominent educationalists, apparently without care for the provenance of the claim.

Which brings me to the third and last reason why this pronouncement is problematic. Promoting what appears to be an ideological claim without substantiation or attending to evidence, exposes children to fancy and fiction in their education rather than best bets and most-likelys. The children who need education the most – the disadvantaged, the underprivileged, the unfortunate – are made doubly unfortunate by the promotion of systems that rob them of the little advantage education can confer upon them. These children get one chance at an education. They have no recourse to tutors, or familial safety nets, or second-chance saloons.

If we don't get it right for these children the first time, we condemn them to lives less extraordinary. Schleicher says: "If you look at 'deep learning', what everybody talks about, you can see in China they do some memorisation, but they put a much greater premium on creative skills, on the ability of students to connect up knowledge. Actually, in the case of the UK and US, there's a lot to learn, a lot to develop." This matters, because nations listen to what Pisa says. Whole school districts and countries pivot around its pronouncements, and budgets and levers follow its desires. There are schools right now deciding to bin memorisation because of this kind of

But memorisation is the key to automaticity of the basics. Which then leads on to the fluidity of factual manipulation and recall. Which then scaffolds and supports comprehension, and every other 21st-century skill and pseudo skill you care to embrace. In other words, Schleicher risks deterring schools from doing the one thing that significantly and reliably assists children to go from novices to experts, and encourages them to adopt strategies that may actually hinder the way children learn. Drilling is highly effective for learning the basics, from vocabulary to tables to reciting poetry by heart. Professor Daniel Willingham makes this point eloquently, as do many others.

Nobody is claiming it is the end game of education – memorisation is the beginning – but beginnings are important; they are the foundation of learning, and of students' flourishing. The children in the greatest need, they need champions who will promote their real interests and outcomes, not the ones we would like. They need evidence-informed strategies and cultures, not the middle-class fantasies of those who should know better. And the OECD needs to be more responsible with the kinds of messaging it radiates. And countries, governments, schools and teachers need to be much more

cautious before embracing its conclusions.

Off with its head!

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