



QUDWA 2017

Teacher Talk in collaboration with OECD “Active Learning: The Way Forward”

Saturday October 7th, 2017

Panelists

- **Lisa Lowenstein**, Science teacher, Arts&Letters, US
- **Niall McGonigle**, Science & STEAM Leader, Oaktree Primary School, UAE
- **Richard Spencer**, Teacher, Middlesbrough College, UK

Moderated/facilitated by Kristina Sonmark, Analyst, Innovation and Measuring Progress, Directorate for Education and Skills, OECD

Summary/Key Points

It is becoming increasingly accepted that involving students in the learning process by incorporating active learning strategies as part of teaching is much more effective in helping them process, integrate and adapt the information. For example, OECD’s latest PISA findings shows that cognitive activation instruction (an active learning technique) is associated with increases in mathematics scores, said Sonmark. A poll taken during the session showed that 90 per cent of participants engaged their students in small groups to come up with a joint solution to a problem.

Didactic learning is dying a slow death, with students increasingly unable to process information they’ve been instructed to copy off the board or out of a book for very long - about 20 minutes at most. Yet teachers struggle with how best to incorporate active learning techniques into their classrooms.

When Spencer, a biology teacher, surveyed his students about the topic, none





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mentioned teacher knowledge as a key ingredient. Instead they focused on teacher enthusiasm and what kind of environment their teacher created in the classroom. “What came out top, by far, was variety,” he said. “And I think variety of learning and content is essential, encouraging students to be motivated so they want to learn.”

Science is the perfect subject to explore active learning, because it encourages practical, investigative delivery of content. But Spencer goes further, often incorporating artistic elements and movement. For example, in a lesson about DNA, he provided straight instruction before turning the learning into a physical exercise, where the students formed a DNA molecule.

“Through singing and dancing, the students became part of the double helix, and at the end it’s all performed to music,” he explained.

McGonigle recalled a time as a child when he was tasked with making paper airplanes outside, only to come in and get a five-minute lesson on air resistance.

“Even though it took exactly the same amount of time, it was much more effective,” he said. “It’s about it being student-centric, it’s about it becoming something about the children. You’ve got to give them opportunities to explore the information.”

There are, of course, challenges when implementing this kind of learning. Large class sizes, for example, aren’t ideal, so students may need to be put in smaller groups. Teachers also face other risks, and often resist active learning strategies because they are afraid of losing control of their classrooms. Lowenstein described letting her students loose on the school grounds to collect bacteria samples in petri dishes, and instead of having to discipline anyone, she watched them become absorbed and excited by their tasks. “It’s a fear that we all have of not being at the centre, but just let them lead,” she said. “Trust your students can have control of their own education - it’s going to be okay!”

All the panelists encouraged their students to incorporate real-world considerations into their lessons. Spencer has his students on the lookout for misleading science news, for example in the form of the latest “this causes cancer” story, to teach the difference between causation and correlation. Lowenstein likes to ground her lessons in humanities and social justice, filtering most lessons through the issues of climate change, genetics and bacterial resistance. “They all understand hand sanitizer in the US, those cute little bottles that dangle from their backpacks that are so bad for you,





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that they all buy, so I teach how they affect their health,” she said.

With students having most basic information at their fingertips through the internet, more than ever teachers need to play the role of an active learning facilitator. And with the world changing so rapidly, students need to see teachers are learners too, and watch them keep up and adapt.

Yet as a new teacher, or even one who at mid-career is looking to incorporate more active learning strategies into their classrooms, it can be hard to come up with a steady flow of ideas. That’s why McGonigle came up with his “one technique a week” philosophy. It involves surveying his colleagues, the internet or books for new ways of doing things. “By the end of the year I’ve got 30 to 40 strategies I can apply,” he said.

An audience question from an administrator at an Indian school in Abu Dhabi asked how to get parents - many of them obsessed with their children getting high grades - on board with teaching strategies that may seem unorthodox. McGonigle suggested hosting coffee mornings to show the parents examples of how active learning can increase their own understanding. Also, said Lowenstein, the improved outcomes associated with active learning should also prove persuasive over time.

Main Takeaway: It is becoming widely accepted that active learning is the best - and most engaging - way for children to learn, and teachers need to be constantly looking for ways to engage students.





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