

The education revolution taking place in our schools

Catholic educators are moving towards explicit, direct instruction over inquiry-based learning - and the early results are very promising, writes SARAH LANSDOWN



Curriculum coordinator Peter Collins teaching the school's Catalyst program at St Thomas Aquinas Primary School in Charnwood. Picture: James Croucher

YEAR 3 students at St Thomas Aquinas Primary School sit in rows, writing on individual whiteboards.

Their teacher, Ella Barry, flashes up question after question on the smart board.

"What time is this?"

"How many minutes in an hour?"

"What about when the big hand is pointing down?"

After each question, the students show their boards under their chins so Ms Barry can check to see if they're correct. She discreetly helps a student who needs extra guidance.

A bowl of toy ducks has the name of each student. Ms Barry picks one out at random to call the student to answer the next question. The class repeats answers out loud before moving onto the next problem.

The rapid-fire daily maths review is part of a revolutionary strategy that is being rolled out across the Catholic systemic school in the Canberra Goulburn Archdiocese.

The large-scale professional learning program, known as Catalyst, is based on the

science of reading and the science of learning. It marks a significant departure from the popular ideas around inquiry-based learning - and other states are starting to take notice.

Inquiry versus explicit, direct instruction

When Ross Fox became the director of Catholic Education in the Canberra Goulburn Archdiocese six years ago, he began a process of reflecting on how the system could best meet the needs of every student. The system sent school leaders to tour high-achieving schools around the country and held two evidence forums.

"A popular educational idea is inquiry learning and inquiry learning has many virtuous aspects but if it's not clearly defined, unfortunately a pursuit of inquiry learning, I think, can lead the student stranded," Mr Fox says.

"The science of learning says very clearly that students are best able to lead their own learning, to inquire, when they have sufficient knowledge."

St Thomas Aquinas primary school principal Leah Taylor was deeply committed to inquiry-based practices when she took on her role at the beginning of 2020.

"I thought that was the way that we needed to go, to engage children and let them be in charge of the direction of their own learning and work with their interests," she says.

However, many students in the Charnwood school were struggling to learn basic reading, writing and spelling skills. The school also faced complex behaviour management issues and high numbers of students with special needs.

Mrs Taylor thrived through inquiry learning but realised it only worked because she was supported by highly-educated, engaged parents and didn't have any learning difficulties.

"It did take me a while to realise that not everybody can do this and that just working harder at inquiry isn't going to help."

Leah Taylor, principal of St Thomas Aquinas Primary School. Picture: James Croucher

Mr Fox said Catholic schools were now trying to get the right balance between inquiry and explicit instruction while achieving a consistent approach among every single classroom in the archdiocese.

"Foremost among the concerns is that the reliability of learning, the consistency of achievement across classrooms, schools, and the system was as high as possible.

"We want to see that we're meeting the needs of every student."

The science of learning

In Australia, 2019 national testing results revealed that over 52,000 children (17.1 per cent) left primary school with reading skills at or below the national minimum standard.

Edith Cowan University Associate Professor Lorraine Hammond developed the professional learning model for the Catalyst program.

"When children are born, they learn how to walk and talk and smile and engage in a social situation, but everything else we really have to teach them," she says.

"Teaching explicitly correctly the first time



Union 'shocked' govt won't pay nurses, midwives bonus

Jasper Lindell

THE head of the ACT nurses and midwives union says he is shocked the ACT government has knocked back a proposal to pay staff a recognition payment, similar to NSW and Victoria.

Australian Nursing and Midwifery Federation ACT branch secretary Matthew Daniel said nurses and midwives in the public health sector were fed up with the lack of recognition they had received through the COVID-19 pandemic.

"They are exhausted and burnt out," Mr Daniel said.

The federation wrote to ACT Health Minister Rachel Stephen-Smith more than a month ago to suggest \$3000 recognition payments, after the NSW and Victorian state governments announced similar bonuses.

"There is no end in sight to the pandemic, our public hospitals are stretched beyond safe levels, and the added burden of the flu season is resulting in health workers breaking under the strain. The government knows this

and the best it can do is to say 'thanks'," Mr Daniel said.

In June, NSW Premier Dominic Perrottet announced a one-off \$3000 payment for all employees in the NSW Health Service, to recognise their work on the frontline responding to the COVID-19 pandemic.

The Victorian state government announced in the same month all public health services and Ambulance Victoria staff would be eligible for a payment of \$3000, split over two pay periods.

"These initiatives come as

vacancies in healthcare roles have reached record levels," the Victorian Health Department said.

Mr Daniel said it was disappointing the ACT government had pointed to its decision not to freeze wages during the pandemic and the fact nurses and midwives in the territory were the country's third-highest paid to justify not making recognition payments.

"Rather than taking the opportunity now to provide real and meaningful recognition of the hard work of Can-

berra's nurses and midwives throughout the pandemic, in similar terms to NSW and Victoria, the ACT government is satisfied that nurses and midwives should just carry on - business as usual. It says a lot about the culture in health care and the government's values," he said in a statement.

Twenty-five nurses left Canberra Hospital's intensive care unit over the Omicron peak, raising concerns about a lack of senior staff, *The Canberra Times* reported in May.

While the number of nurses across the territory's public health system has increased by almost 280 staff over the past year, the union remained concerned about the skills mix as more junior staff replaced senior outgoing health workers.

"We are committed to taking the right steps to support our team members as we strive to provide the best working environment we can," Canberra Health Services executive director division of surgery Lisa Gilmore said at the time.

is easier than trying to fix it up when kids have misconceptions if they figured it out wrong themselves, so it's a far more efficient and effective way to teach."

She said NAPLAN data shows significant under-performance in capable students in and around Canberra.

The direct instruction model is based on the work of Dr Barak Rosenshine, who identified three things teachers needed to get right in the classroom.

Firstly, concepts need to be broken down into small, manageable chunks.

Secondly, students need to be actively participating. This means responding regu-

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Ross Fox, director of Catholic Education in the Canberra Goulburn Archdiocese

larly to the teacher, discussing with a peer in a "pair share" and writing on their individual whiteboards. They can also be called upon at any time to give the answer, so everybody needs to be listening.

Thirdly, teachers need to get regular feedback on whether the knowledge is being transferred, as when the students display their whiteboard under their chins.

"It means that during the course of the lesson or when I'm teaching, I can make it easier or harder. I can stop and reteach. But I'm actually aware of how things are going while the students are actually learning," Dr Hammond says.

The aim is to effectively transfer knowledge through explicit teaching, followed by lots of repetition, to transfer the concepts into the students' long-term memories.

"There's no evidence of a child ever dying from practice."

The benefits

Mrs Taylor says it can be almost embarrassing to admit that her school privileges direct explicit instruction over the popular inquiry model, but it's already making a big difference.

Just two years into implementing the InitialLit and MultiLit literacy programs developed by Macquarie University, the school has seen huge improvements in student achievement and behaviour.

The school has gone from roughly 60 per cent of students achieving below the national

reading benchmark to only 15 per cent for those classes that have implemented the new literacy program.

Previously, the school used a whole language approach to literacy with reading comprehension activities. Children could select any book they like, even if it was above their reading level, and would only read to an adult once per week.

Now students learn to decode and encode words through explicit instruction in phonics. Mrs Taylor says kindergarten students are now able to confidently discuss diagraphs - when two letters combine to make a new sound.

It's also a pandemic-proof approach. In the 2021 lockdown, teachers were able to record their lessons and the students who followed at home barely skipped a beat.

The critics

University of Canberra executive dean of education Professor Barney Dalgarno says there is a place for both explicit instruction and well-structured inquiry learning in the classroom.

"Then you're teaching children how to read, how to write and how to do really basic mathematics, you can use more explicit instruction than inquiry learning, definitely," Professor Dalgarno says.

He says while some journal articles argue very strongly about the limitations of inquiry-based learning, those articles tend to show that it was unstructured and unsupported inquiry learning that was ineffective.

"Well-designed inquiry learning that is well-supported and also incorporates the right amount of explicit teaching at the right stages generally outperforms either explicit teaching or inquiry learning on its own."

Professor Dalgarno says the danger of teaching what is easily measurable is that



Year 3 teacher Ella Barry with students at St Thomas Aquinas Primary School.
Picture: James Croucher

we could end up with students who are good at sitting tests but not prepared for the workplace.

"[Employers] want people who can do work in groups in unstructured, collaborative activities. They want people that can undertake complex problem solving and inquiry and deal with unstructured, diverse information and get it into a cohesive form and provide recommendations of the way forward," he says.

"If we try and simplify our approaches to teaching in the classroom, in ways that maximise students' performance on literacy and numeracy tests but don't actually give them those basic 21st century capabilities in the kind of messiness of the world, then we're not really doing our job in preparing our students for the future."

Mr Fox says Catholic schools are not focused on test results, but were focused on students learning the knowledge they need to be confident and creative individuals.

"We're not focused on test results, but we believe that high-quality learning is related to students being able to answer more questions correctly on a test."

The University of Canberra has introduced two new units in its initial teacher education degrees focusing on high-impact teaching and teaching reading through phonics in

University of Canberra executive dean of education Professor Barney Dalgarno.
Picture: Jamila Toderas

response to demand from the Catholic sector.

Professor Dalgarno said the pre-planned programs in Catholic schools would be particularly helpful for teachers in their first three to five years of service, but that teachers should be empowered to adapt these practices to their own contexts.

Dr Hammond said critics often say students and teachers don't enjoy direct instruction, but she has not found that to be the case.

"I'd say there's been a groundswell of support but, of course, teachers won't do what doesn't work. And this works. They've seen immediate change."

Where to next?

Leaders in the Tasmanian Catholic Education system visited several Catholic primary and high schools in Canberra last month to see Catalyst in action. South Australia has also begun literacy initiatives and Victorian Catholic educators have also taken notice.

Mr Fox wants to form a nation-wide alliance around the science of learning as the Canberra Goulburn Archdiocese continues its mammoth effort in providing professional development to all teachers in high-impact methods.

"We've learned so much. We're confident this isn't a fad," he says.

"This is about the best understanding we can bring to how students learn and how as teachers and educators we can promote efficient and high-quality learning throughout a student's career."