AGE-
APPROPRIATE
PEDAGOGIES

Case study
Oakenden State School

Oakenden State School is a small rural school near Mackay in Central Queensland. It was established in 1910 and currently has a teaching principal and 19 children in a multiage P-6 class. More than 80% of the school population is in the lower two quartiles of the Index of Community Socio-Educational Advantage (*ICSEA*) (2014). The teaching principal is new to the school and has a strong commitment to explicit instruction which is reflected in the school's pedagogical framework.

Focus area

The Australian Early Development Census (AEDC) data for the statistical local area (SLA) showed that 11.8% of Prep children were vulnerable in the area of social development. The school team (teaching principal, teacher aides and support teachers) considered this information along with the school data that indicated that children across the school needed to further develop their skills in solving problems using high order thinking and reasoning. Accordingly, an action plan was devised that focused on the development of children's higher order thinking and problem solving abilities in learning experiences that involved collaboration with others. Direct teaching and inquiry approaches would be used, and learning experiences were to be active, agentic, collaborative, creative, explicit, language rich and dialogic, responsive and scaffolded.

First steps

The teaching principal considered that gaining the support of parents, aides and support staff was going to be crucial if they were to make a major shift in the school teaching philosophy and incorporate age-appropriate pedagogies into their pedagogical framework. He approached this by having conversations with individuals, and discussions in Parents and Citizens' Association meetings, about the aspirations for their children's future and presenting a convincing argument based on evidence in the Foundation paper that age-appropriate pedagogies were necessary to prepare children for learning success in the 21st century.

Once he had support (although some held reservations), members of the school team reflected on their own teaching and considered the opportunities they currently provided for Prep children to problem-solve and reason at a high level. An audit of activities using the *Question Matrix* (Wiederhold, 2006) based on Bloom's Taxonomy, highlighted that teachers were not currently asking children the types of questions that prompted higher-order thinking. They set about re-framing the questions they asked children individually and collectively using the sentence starters in the Question Matrix.

		EVENT	SITUATION	CHOICE	PERSON	REASON	MEANS
To check what I know or need to understand I can ask...	PRESENT	What is	Where/When is	Which is	Who is	Why is	How is
	PAST	What did	Where/When did	Which did	Who did	Why did	How did
To learn more about it I can ask...	POSSIBILITY	What can	Where/When can	Which can	Who can	Why can	How can
	PROBABILITY	What would	Where/When would	Which would	Who would	Why would	How would
To challenge my thinking I can ask...	PREDICTION	What will	Where/When will	Which will	Who will	Why will	How will
	IMAGINATION	What might	Where/When might	Which might	Who might	Why might	How might

Wiederhold, C., & Kagan, S. (2007) *Cooperative learning and higher-level thinking: The Q-matrix.* Moorabin, Victoria: Hawker Brownlow.

Queensland Government

Teachers set about posing open-ended inquiry questions for children to investigate, and problems for children to solve cooperatively. One of the tasks involved designing and building a home for a toy animal and explaining and justifying the appropriateness of its design features. Philosophy for young children (Cam, et al., 2007) was also introduced to further promote the development of higher order thinking. In the introductory philosophy lesson the teacher collaborated with children to establish a safe space to express and build ideas. They did this by developing four rules:

- we respect each other's ideas
- we listen to each other
- there may be no single right answer
- we build on each other's ideas.

Reflections

At first teachers used a lot of modelling and scaffolding within learning experiences to show children what working together looked like and how to use strategies to attack problems. This was planned because children had had little opportunity to work collaboratively, have a choice, demonstrate initiative, or take risks in the classroom before. It was a big challenge for the teaching Principal to sometimes "let go of the reins" and take a less structured approach to lessons, allow learning experiences to evolve, follow children's interests and respond to learning opportunities that arose spontaneously. He also found the introduction of philosophical discussion in Prep difficult and reflected that initially students struggled to look beyond the surface and conversations … were very much teacher-directed. However, after Prep children were placed in multi-age groups, they found it easier to engage in philosophical discussions with older students, learning to contribute and build on the ideas of their older peers.

Learnings

Over six months, teachers reported that children's collaborative problem-solving abilities were improving and that these skills were being transferred into the playground as playground behaviour had improved. It was this notable improvement that convinced parents and teachers that the change was beneficial. The teaching principal noted that children had realised the power of listening and building one each others' ideas; their responses had become more in-depth; and their thinking more critical. Findings from a second audit of classroom activities using the Question Matrix indicated teachers had increased their use of questions related to higher order thinking. However, further refinement was still needed to ensure teachers introduced questions that started with, for example, "How would you…" and "How will…" to ensure children were engaging in thinking related to probability and prediction.

Next steps

Next steps will be to continue to refine their questioning techniques to promote higher order thinking and problem-solving and foster philosophical thinking across the school. A greater focus will be given to providing opportunities for children to exercise agency and collaborate with teachers and peers to promote independence in their learning. A review of the school's pedagogical framework will be undertaken to incorporate age-appropriate pedagogies and staff will continue to refine their questioning techniques and promote philosophical thinking.