

# Editorial

This issue of *Set* gives insight into how educational knowledge-building is shared between students, teachers, researchers, and professional-development facilitators. Groups of inquirers can be activated at all levels of the education system, from the classroom (shared between teacher, students, and perhaps others) to the school (shared among teachers, syndicates, leaders and others) and beyond (perhaps within a Kāhui Ako, or as a regional or national movement).

The articles in this issue provide concrete examples of teachers developing their thinking and practice, often using a research or inquiry approach supported by academics or advisors. Each article considers a unique topic, including mathematics, language acquisition, personalising learning, and equity. Together the articles illuminate the complex jobs of teachers who simultaneously attend to: extending their knowledge about the subjects which they teach; understanding how learning happens and developing the pedagogies to suit; and meeting their specific students' interests and needs. Given the complexity involved, it is no surprise that the articles suggest a bird's-eye view can help, whether gained from data analysis or an external party, or both. In no way does this suggest that teachers simply follow directions espoused by experts, or rely on a trickle down from the top. Teachers in the studies outlined formed communities of inquiry in various guises. These allowed for a collective, networked, and generative approach to learning for everyone involved.

We begin with an inquiry described by two teachers from Paraparaumu College, Aaron Mead and Fiona Jeffries, supported by Rosemary Hipkins and the Teaching and Learning Innovation Fund. Aaron and Fiona talk us through their investigation into how digital technologies can be used to personalise learning. The inquiry team developed a set of personalisation markers that they trialled in various technology-assisted approaches to learning across a range of subjects and year levels. Key to the inquiry were questions about the potential relationship between personalisation, engagement, and achievement.

The next article is the result of teacher Lisa Fleming's postgraduate study, co-authored by her lecturer Margaret Kitchen. Although the project didn't involve a community of inquiry per se, the findings reported in this article could very well function as a precursor to one. Lisa uncovers a problem in need of educators' attention. The topic is Chinese international students' experiences of poor achievement in New Zealand secondary schooling. In-depth interviews provide a poignant explanation of ten students' low NCEA results. The authors offer some initial steps towards more positive reciprocity in line with a duty of care.

He Whakaaro Anō acts as a fulcrum for this issue. Here, Jane Gilbert contributes a theoretical and historical account of constructivism, including its offshoot terminology such as "co-construction". She outlines four meanings of constructivism across education and sociology. Each meaning treats both learning and knowledge slightly differently. Jane suggests that educators can become confused and push constructivism beyond its original remit. She contends that it may be most productive to sidestep the idea altogether, turning to the more future-focused concept of "knowledge-building" offered by Canadian researchers Carl Bereiter and Maxine Scardamalia. In doing so, Jane argues that "it is possible to make a robust case for the idea that children can create new knowledge, without conflating personal and disciplinary knowledge" (p. 21). Likewise, "Knowledge-building is useful, not just for students, but for teacher development" (p. 22). She sees affinities with Kāhui Ako and their potential to promote system innovation. There is so much in this commentary that it needs to be read from start to finish, likely several times over.

I encourage readers use the theoretical lenses on offer in He Whakaaro Anō for viewing other articles throughout this collection. As further encouragement, we've titled the focus section Knowledge-building for Professional Development. The section demonstrates how teachers have collectively built their knowledge and practice with some input from a subject or research expert.

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Roberta Hunter's team first introduces us to the model of developing mathematical inquiry communities, a research-based approach that supports teachers to develop new pedagogical strategies whereby "The teacher's role shifts from being the mathematical authority to being a facilitator who draws and builds on students' thinking to advance the mathematical understandings of all participants within the learning community" (p. 26). Next, academics Lexie Grudnoff and Mavis Haigh co-write with two deputy principals, Claire Jackson and Paula Passfield, about their collaborative inquiry to improve equity within two primary schools. The results show how working on "practice problems" across schools, while systematically interrogating data, enabled professional learning and improved student outcomes.

Lastly, Jannie van Hees discusses a key finding associated with the intensive oral language programme, particularly its "tell and retell" approach. The researcher and teachers were astounded by students' language-acquisition capabilities, especially those who began school with very basic English. An argument is made for teachers to be particularly cognisant of their own talk for scaffolding language learning in the early school years.

In Q&A we ask Pam Hook about the structure of an observed learning outcome—a.k.a. SOLO—taxonomy.

She explains what motivated her to move SOLO out of universities and into classrooms. She shares her thoughts on the strengths and pitfalls of SOLO, ultimately seeing it as a practitioner-based movement supported by the sharing of case studies and student outcomes through social media, co-authored books, and online resources.

Assessment News features the launch of the New Zealand Assessment Institute. Cofounder Jenny Poskitt presents a summary from its recent seminar series involving 400 teachers and educators in Auckland, Christchurch, and Wellington. The Institute is poised to collectively build assessment knowledge and capacity, given that assessment is under transformation at the national level.

This collection encourages teachers and schools to harness their collective wisdom, be generous with their sharing, and remain open to learning from others. As we sense movement in New Zealand's educational currents, each drop of change counts in turning the tide towards a future that educators can be proud of. As the swell builds, coastlines may shift, and new maps will be required. Every teacher can have a part to play in building the knowledge necessary.

*Josie Roberts, Editor*