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Making sense of learning at secondary school: an exploration *by* teachers *with* students

Within New Zealand in recent years there has been a growing sense of dissatisfaction with current secondary school structures and processes. While teachers, students, parents, and politicians seem variously (although, it must be said, quite differently) disenchanted with many current secondary school practices, most of what is reported in the media is built on idiosyncratic experience and anecdote, not on evidence-based research.

International and national research shows that the two most important factors in students' engagement and variance in achievement are the students themselves and the teacher (Hattie, 2002). Few studies, however, have sought to understand learning simultaneously from the perspectives of both parties immediately engaged in the process—the teachers and the students.

The initial challenge in this project was to make student learning processes explicit by asking secondary students how they understand and make sense of learning at school. This challenge, however, must be understood within the context of student and teacher interactions in the secondary classroom.

The second challenge of this project was to support teacher researchers as they bring together the ways in which they and their students make sense of learning and examine ways in which these are coherent or otherwise.
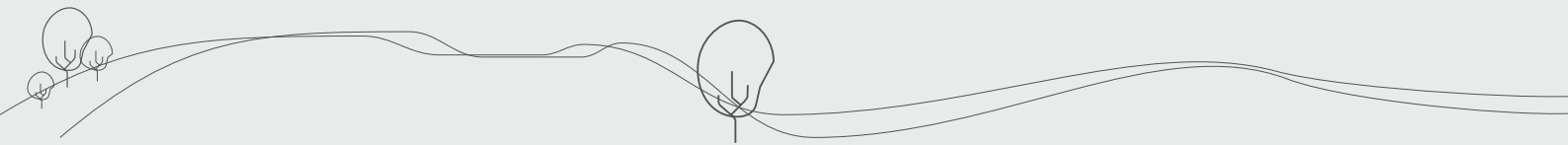
Research questions

Using secondary classrooms as the authentic context, this study used the voices of students and teachers to specifically address the following questions:

- What do teachers understand about student learning?
- How do teachers seek to promote student learning in their classrooms?
- How do students understand their own learning processes?
- What do students identify as being critical to enlisting and sustaining their engagement?
- What do students identify as barriers to their engagement?
- What coherence is there between teachers' and students' conceptions of student learning?
- How can the reconstructed experiences of students' learning inform the ongoing development of teachers' pedagogical practices?

Research design and methodology

This project involved groups of teachers, school management staff, and students from three secondary schools in regional New Zealand. The field-based researcher worked within each school for a school term, working alongside the individual teachers who volunteered to be involved in the study. In total, 18 teachers across the three schools participated, 328 students completed questionnaires, and a total of 61 students participated in weekly focus groups for the term during which the project was located in their school.

The research design aimed to capture what students and teachers think and say about student learning, to observe teaching practice directly , and to reveal the thinking, beliefs and conceptions that underpin teachers' practice. To do so, we adopted a multi-method research design that allowed triangulation of data through multiple sources (students, teachers, and documentation) and multiple data collection protocols, including questionnaires, fast feedback forms, individual teacher and student focus-group interviews, stimulated recall interviews with teachers and students, and teacher and student learning journals.

Partnership

The research team was based on partnerships whereby team members were provided with opportunities to "learn from each other's expertise and located the teachers 'inside', as producers of knowledge about teaching and learning, not as the receivers of the research" (Oliver, 2005, p. 1). Students were also located "inside" as experts on their own learning, while researchers were located, and welcomed, "inside" the school.

The participating teachers were themselves the key researchers within this project. With assistance from the university researchers, teachers were introduced to ways in which they could explore their teaching practice and the learning of their students. This project also sought to move beyond students as a data source and engaged students as active respondents and co-researchers.

Main findings

Findings from this 2-year study demonstrated that teachers and students held similar conceptions of student learning, which was predominantly understood to be learning as building knowledge and understanding that can be applied in different situations. There was little evidence that teachers or students conceptualised learning in terms of higher level cognitive demands such as analysis or evaluation.

Evidence from the study shows that, although teachers and students identify similar situations and conditions as necessary to enhance learning in secondary school classrooms, teachers' current practices do not always reflect such conditions, and often contradict them. Both students and teachers identified respectful relationships, relevance of subject and objectives, appropriate preparation, clear and open communication, and supportive classroom environments as essential to student learning. Central to supporting student learning was the need to acknowledge and respond to a diversity of learning preferences.

Through the course of the project teachers became aware of aspects of their own classroom practice that contradicted these conditions and instances where they repeatedly talked past students and were unaware of students' levels of understanding. Through listening carefully to the reflections and insights of the students, teachers were able to reconsider the ways in which they organised their classes and interacted with students. As teachers began to listen and to respond to student feedback, students became more confident in providing critical feedback on teaching and learning, so that a cycle of respectful dialogue was established between teachers and students as partners in the learning process.

The project provides clear evidence of the importance of acknowledging the student as an important and authentic voice within the teaching–learning relationship. Students demonstrated their capacity to contribute to the enhancement of teaching through revealing to teachers the ways in which they experienced lessons. Students became active researchers of pedagogical practice, in partnership with teachers, as they together examined the ways in which their classroom interactions were sites that supported or stymied learning. In addition, students became more aware of and more concerned about their own learning and the ways in which they can take responsibility for how they learn.

Really schools aren't really about teachers, it's about the students and students first of all, and then relationships between students and teachers, but really it's about the students because teachers have already been there and done that and they're supposed to help us grow and stuff. (Participating student)

Maybe if the teachers or the school people actually really listened to us they could have a deeper, much more clearer view and understanding of what we are going through in school. (Participating student)

Teachers became students of pedagogical practice by first examining their own practices and then gaining access to the ways in which students experienced and interpreted these practices. In partnership with students, teachers were able to reconsider the effectiveness of their current pedagogy and continually review and revise the ways in which they worked.

I believe that the process would be relevant, helpful, even enlightening for all teachers to experience. If teachers were to reflect in the same way that we did, teaching and classrooms would be incredibly different. (Participating teacher)

The project sought to advance knowledge about learning in secondary school and explore how students could contribute to this goal. By involving students and teachers as researchers of teaching and learning this project has enabled us reconsider the importance of the student voice within secondary schooling. The findings demonstrate that students can make critical contributions to co-constructing the curriculum alongside of teachers. In this study, teachers and students co-operated to establish enhanced classroom learning cultures and a new language of learning to meet the diverse needs of the students within the class.

Collaboration in learning between teacher and student and student and student is demonstrated to be vital and supportive of the new drive for co-construction of knowledge. Fielding (2001, p. 130) argues that 21st-century curriculum planning must have aspects of openness, co-engagement, and flexibility reminiscent of "dialogic forms of democratic practice" that recognise that "teacher learning is both enabled and enhanced by dialogic encounters with their students". Learning becomes "a shared undertaking in which students and teachers are at different times and simultaneously learners and teachers of themselves and each other" (Fielding, 1994, p. 18). As part of the new negotiated common classroom understandings, the students themselves become more responsible for their own learning. Daws (2005, p. 111) argues that for everyone to benefit from the "reciprocal learning process, it is important for teachers to consider themselves as active learners as well". When they listen to their students, teachers identify themselves as active learners intent on reconstructing their practice for the benefit of all learners.

Building capacity

The research project has contributed to building capacity and capability across three key groups of participants: students, teachers, and researchers.

The students in this project were originally positioned as being consulted on the teaching and learning process as active respondents. During the research process their positions shifted to one of co-researchers actively engaging in dialogue with teachers and researchers. They became reflective learners, subjecting their own learning to critical scrutiny, and became co-constructors of their classrooms and learning experiences.

Teachers reported that the research provided them with a structure and formal support through which they could investigate and improve their own pedagogical practice. Teachers demonstrated increased capacity to view teaching and learning from alternative perspectives, to question the consequences of their in-class decisions, and to deconstruct classroom interactions in light of the students' reflections.

In considering the capacity and capability building of this project, it is apparent that it has provided an opportunity for the university-based researchers to further develop their own research skills, to extend their understandings of the teaching–learning relationship within secondary school classrooms, and to examine this within a framework of contemporary literature and research. Researchers have also been able to reflect on the research process and, through the challenges encountered, identify areas that need to be given special attention in future research.

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Lead authors and researchers

Having recently moved from her position as Professor of Secondary Education at Massey University, **Ruth Kane** is currently Director of Teacher Education at the University of Ottawa. In 2005 she led a national study of initial teacher education and a further study of people's perceptions of the status of teachers. Ruth continues to be active in research on the preparation and induction of beginning secondary teachers in New Zealand and in Quebec.

Nicola Maw was the field researcher on the Making Sense of Learning project. She is now director of Liminal Research and Consultancy Limited, is currently directing one evaluation project, and is involved in another. She acts as a consultant for the Centre for Educational Development, Massey University, on matters relating to research and student voice and is currently investigating other research possibilities in the area of student voice and learning.

Nicola has worked at Massey University and the Institute of Education, University of London, as an educational researcher. Her academic background is in social anthropology and she has conducted research in Pakistan and Peru.

Dr. Christopher Chimwayange is a recent graduate of Massey University School of Education, where he has also worked as a research assistant in various projects including this one. He came to New Zealand as an ODA scholar with 20 years' teaching experience in Zimbabwean high schools. He has held a number of senior positions in education, graphics, and design, and also sat as a member of the National Vocational and Technical Subjects Task Force in Zimbabwe. His research interests include technology education and practice, motivation in education, curriculum integration, student voice, and gender issues in education.

Practitioner partners

Our practitioner partners were Anne Grayson, Ingrid Heyns, Julene Kapao, Tom Lin, Jude Little, Catriona Righton, Bruce Sharp, Paul de Ville, and Stan Walsh (Palmerston North); Verity Elder, David Lochhead, Pene MacLachlan, Geraldine Reynolds, Steve Turpin, and Tangi Utikere (Palmerston North); and Terehia Channings, Heeni McAleese, and Terri Totorewa (Marton).