

5. Limitations of the project

Case study research seeks to answer the question “What is going on?”, and to appreciate and understand an innovation from the inside (McKernan, 1996). The lack of external reliability or validity and the uniqueness of the case mean that case study research is not easily generalised (Anderson, 1990). However, this project used multiple data sources to provide internal reliability. The findings identify a number of similarities and differences in the two cases. Not only were the two schools able to learn from each other’s growing understandings about integrative approaches to teaching and learning, but others in the wider educational community can also learn from the findings, “in that the information given allows readers to decide whether the case is similar to theirs” (Stake, 1985, cited in McKernan, 1996, p. 74).

A team with limited research experience undertook the project work. The research co-ordinator herself had limited research experience and was not a full-time researcher. The other two members of the research team were full-time principals.

The duration of the project—one school year—presented challenges. It was not possible to gather data about teacher practice before the innovations were implemented; nor was it possible to gather adequate data about the practice of the teachers in their classrooms. For this, teachers would have needed professional development about research methodologies, and more time to practise observing and providing feedback to each other.

The absence of robust student achievement data is a limitation. Identifying possible links with curriculum innovation, and changed teaching and learning practices, was a central objective of the research. The practical experience and professional judgement of teachers was important, but insufficient to support definitive conclusions. Moreover, the findings describe *what* students learned because of their involvement in integrative teaching and learning experiences, not *how much* they learned.

Despite these limitations, the case studies presented a picture of the changes each school was making. The schools identified areas where they needed to improve, and the research methodologies provided different ways of gathering, analysing, and using information. The schools reported that involvement in the research project had benefits for teachers, students, and parents/whānau. The research activities themselves were a form of professional development for teachers, who learnt to inquire systematically into their individual and collective practice. Joint analysis of data enabled teachers (and students) to understand the cultures of their own schools, and to form evidence-based recommendations for future actions. Parents/whānau, particularly those from one school, expressed appreciation at being involved in discussion forums that presented project findings. They reported that they had learnt more about what the teachers were trying to achieve, and felt better able to support the learning of their children as a result.

Student participation was an important part of this project. Integrated designs, such as those described by Beane (1997), indicate the need to develop democratic forms of curriculum design that are collaborative, or “socially integrated”. Involving students as research participants and data analysts, and encouraging them to present recommendations to teachers, incorporated their “voices” fully in the research process.

6. Building capacity and capability

While focusing on specific questions in relation to effects of the implementation of integrated curriculum designs and alternative pedagogies, the project built the capacity and capability of teachers, individually and collectively, to inquire into their own practice. They were fully involved in collecting and making sense of data and identifying future actions, not only as professional communities of teachers, but with their students and their whānau. Informal feedback from teachers, students, and their whānau highlighted the value of the connections achieved. The research activities gave voice to all groups and encouraged a greater commitment to work in partnership to improve student learning.

The project team

Research co-ordinator

Christina Harwood was formerly the Director of the Centre for Educational Development, Massey University College of Education. Her key research and development interests are in-service teacher education and how implementing curriculum change impacts on learning outcomes for students.

Co-researchers and contributing authors

Lorraine Williamson

Lorraine is Principal of Opunake Primary School. Her leadership as a principal is focused on improving outcomes for students (Māori students in particular) through effective teaching practice. She believes school leadership involves supporting teachers to define and implement effective teaching practices through quality professional development and professional dialogue. Her current interests in this area are developing and implementing integrative curriculum designs and associated pedagogies.

Graham Wilson

Graham is currently Principal of Merrilands School in New Plymouth and was Principal at Eltham School when the research project *Zeroing in on Quality Teaching* began. He was interested to be part of a research-based project that aimed to understand how pedagogical innovations and curriculum integration affect student learning. He is looking forward to using all he has learnt from this project in the ongoing developments in his current school.

Co- researchers

Participant teachers, students, and their whānau from Eltham and Opunake Primary Schools.

7. Recommendations

1. At present the opportunities for professional learning for teachers and researchers through collaborative inquiry into the issues and challenges of improving student learning outcomes are underutilised. While teachers can inquire and reflect on practice, both individually and collectively, the involvement of an independent researcher increases the likelihood of understanding complex and sometimes hidden factors that might otherwise not be recognised. Funding under the TLRI should continue to support school-based, student-focused research.
2. The TLRI should review its funding parameters. Funding a project for one school year limits the scope of research initiatives and activities. The schools involved in this project would have liked to continue the research activities into 2006, to implement emerging understandings.
3. Further research and development are required to create assessment tools and processes for teachers to assess learning outcomes (social, personal, and academic) that are related to more than one subject or discipline. Currently, many of the approaches employed by schools to assess learning use rational, standards-based achievement tests or tools (for example, STAR) that test limited domains of learning only. As New Zealand moves towards the dispositions and skills described as key competencies in the New Zealand Curriculum Project, schools need alternative assessment tools and practices that are widely understood and accepted, to show what students think, know, and can do with knowledge and learning in real-world terms.
4. This research attempted to describe the links between teaching and learning when teachers implemented integrative curriculum and pedagogical designs. Just how the activities of teaching and the uptake of learning are related requires further research. Although there is a link, more research is required to examine how the design of learning experiences and teachers' practice affect the experiences of learners. Moreover, further research is required to establish the effectiveness of integrative curriculum designs. This is important in New Zealand, as the new national curriculum will increasingly encourage schools to design and implement learning programmes to meet the learning needs of the students in their communities. Integrative designs may inform the design of such school-based curricula.

8. References

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1. http://www.tlri.org.nz/pdfs/9227_finalreport_1.pdf
2. http://www.tlri.org.nz/pdfs/9227_finalreport_2.pdf
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