

School Two

This section reports findings from document analysis and interviews, autophotography, and photo elicitation from seven teachers and eight students from the second project school in relation to each research question.

1. What was the extent and nature of any changes with respect to individual teacher practice and the practice of professional learning communities within and between the schools?

The school was in its second year of implementing integrative curriculum designs and supportive pedagogies.

The charter and strategic plan expressed the school's vision and beliefs. They placed students at the centre of the school, visually and philosophically. Key values and attitudes, listed in English and Māori, were linked to desirable thinking and learning attributes (for example, thinking critically, analytically, and creatively), which were to be developed through key curriculum design and pedagogical approaches (for example, curriculum integration, habits of the mind, co-operative learning, thinking tools, and strategies for and use of ICT). Teachers, parents/whānau, outside agencies, and the wider community all formed a visually bounded system, focused on six charter goals:

1. Students and teachers ... will have strong literacy and numeracy skills.
2. Students and teachers ... [will] be immersed in purposeful learning through a thoughtful curriculum.
3. Students and teachers ... will actively participate in co-operative learning and teaching.
4. Students and teachers ... work in an environment that is social, emotionally, culturally and physically safe.
5. Students and teachers ... have opportunities to participate in local tikanga and te reo.
6. Students and teachers ... enhance the learning partnerships with the local community.

The charter and strategic plan indicated the school's intention to develop a holistic approach to learning and teaching, involving all key stakeholders in the community of the school.

During 2003 teachers engaged in professional development activities in relation to implementing integrative curriculum designs and alternative pedagogies. They developed this further during 2004 and 2005.

Teachers' responses

Responses from individual interviews with teachers provided information about what teachers conceived as integrative curriculum designs. Their responses indicated a shared understanding that curriculum integration was a form of curriculum design based on students' interests or questions ($n = 6$):

... based on questions about self, the world or the future [using] a facilitated process to elicit the questions.

Themes built around interest rather than specific curriculum areas.

Two responses also noted that literacy and numeracy were stand-alone teaching areas in the school.

Some teachers added to their views about curriculum integration by describing what it was not ($n = 4$), by using concepts about learning and teaching ($n = 5$), or by identifying connections with the community ($n = 2$):

It's not about fitting curriculum areas into themes.

It's not multidisciplinary.

The implementation of integrative designs, as described by Beane (1997), required teachers to change their professional practice, both individually and collectively. When asked to describe the changes they had made, teachers reported change in a number of areas, and sometimes added evaluative comments about the nature of those changes.

Responses from individual interviews with teachers indicated considerable change in relation to learning and teaching in their school. Some teacher responses focused on ideas related to operational matters ($n = 5$), but the majority of responses addressed teaching practice and student learning ($n = 30$).

Reported changes included changes to planning ($n = 6$), with “whole staff planning rather than syndicates” of school-wide, term-long themes that connected over the whole year. Teachers also noted that they were planning with students more, starting from students’ questions ($n = 2$). One teacher stated that teaching to children’s needs or interests was “a complete change of direction for me”. Other teachers ($n = 4$) noted that initial planning needed to be flexible, so that teachers and students had time to work with questions or issues that evolved during the units. One teacher commented:

Often I'll follow the students' lead or where it seems like they're interested in going and still be teaching them the things I want them to learn. I may do it in a different way than I planned or where I thought the lesson might go.

Teachers also discussed changes made to assessment systems and procedures used in their school that focussed on the assessment of learning goals related to the school charter and strategic plan, rather than “just curriculum objectives”. Teachers reported the development of two new procedures:

Using portfolios to show changes. ($n = 2$)

Using rubrics to assess skills. ($n = 2$)

One teacher reported that a key outcome of the changes made in assessment systems and processes was that information about student achievement was more open:

We are actually presenting information rather than hiding stuff. We say this is where they're at, and that can be good or bad, but if we do this we know they'll improve.

Another teacher noted that as a school they still needed to “work on assessment related to integrated units more”, as some of the skill development was not being formatively assessed.

All teachers indicated shifts in their actual teaching practice. Common themes were an increased focus on the needs of the students, and working or learning with students. Comments included:

More focused on individuals and their needs/interests. ($n = 4$)

Working with children to help them find out. ($n = 2$)

Learning with kids. ($n = 1$)

Less whole class work—more individual and co-operative work ($n = 2$)

I've got a much greater grasp of each individual, where they're at and what they can do and what they need to do next.

Having fun with kids. ($n = 1$)

It's harder, but much more rewarding and satisfying. Every day is new.

Teacher interview responses ($n = 6$) reported an increased emphasis on specific skill teaching (for example, thinkers' keys) and the use of learning strategies (for example, co-operative learning and learning intentions). Teachers' autophotography and photo elicitation responses also indicated these emphases.

Teacher Response



Cooperative learning with specific roles and responsibilities and a group task meets the needs of diverse learners. Everyone in the group can have a different part to contribute based on their individual strengths. They can also help others to develop the skills and overcome individual barriers and difficulties.

Teacher Response



Infusing higher order thinking through the use of context.



We use a range of tools to connect with the learning needs of students. By using frameworks such as thinkers' keys and six hats, children can approach their thinking and contribute in different ways as they learn across the curriculum.

The changes reported by teachers went beyond organisation and approaches to learning and teaching. As teachers developed and used integrative approaches, three teachers also reported shifts in their beliefs about what students could do and achieve. They noted that they now expected students to take more ownership of their learning, and that as teachers they had “higher expectations about depth and quality of children’s thinking” ($n = 1$) and “higher expectations about the kinds of tasks and the amount of work that students can do” ($n = 1$).

The practice of professional learning communities in the school deepened over time. All participating teachers ($n = 7$) reported that the ways they worked together as a professional group had changed as they implemented integrative designs. Teachers reported that collaborative planning resulted in less professional isolation (“when we do this, things work really well”— $n = 7$), the responsibility for improvement and working towards school goals was shared to a greater extent ($n = 7$), targeted professional development and professional reading increased ($n = 4$), and there was more discussion about teaching ($n = 2$). Comments included:

I’ve never had so much PD in my life.

Strong leadership has supported us to change.

Working together is collegial, not convivial. It includes feedback to each other.

Teacher Response



The teachers in this school work as a team. By working together, we accomplish what can look to be impossible.

Collaborative planning is an enabler. We work from kids’ questions and plan ways to work together. We no longer work as single cells. Everyone is on-board.

Working with colleagues is an enabler. Whole school planning is powerful and adds healthy competition about the outcomes we achieve for children. As teachers, we focus on the same things. We utilise teachers’ strengths and because we all learn differently, we can problem solve to meet the diverse needs of our children.

Two teachers noted that not everyone had accepted the level of collaborative work. One commented:

I think there are pockets of interests. There are teachers who have interests in thinking skills, teachers who have interests in other things, and I think down the track we can utilise those interests more.

Teachers supported the changes they had made to curriculum design and teaching approaches. All teachers believed that the changes would persist, and provided reasons for this opinion:

Student interest and engagement and motivation. (*n* =2)

Role models coming through the school. (*n* =1)

Strong principal leadership. (*n* =3)

Commitment and passion of staff. (*n* =2)

We have a critical mass. (*n* =1)

The community is more involved. (*n* =1)


The BOT. (*n* =2)

The Board, the community expects it, students expect it. They know what they are entitled to and what they should be getting.

Students' responses

Student interview responses about teacher practice confirmed what the teachers reported. Students discussed co-operative learning, clear instructions from teachers, and learning intentions as examples of the things teachers were focusing on in classrooms. They also raised these points in their autophotography and photo elicitation responses.

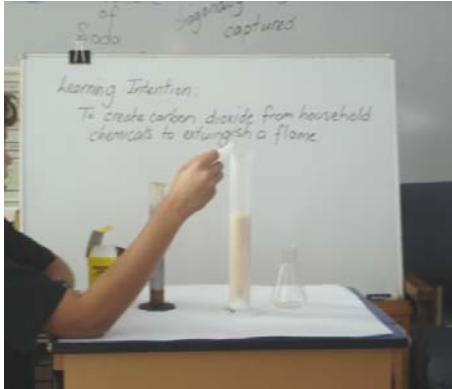
Student Response



The teachers explain what we need to do, and then we go and do it. (Year 7)

Teachers help us learn things by giving clear instructions and lots of support and encouragement. If we have trouble, they help us. They also help us to learn about cooperation and perseverance. If we don't cooperate, then some things are very, very hard. We also learn to encourage each other. Teaching little kids sometimes also helps to show my talents. (Year 8)

Student Response



Teachers expect me to make and do either by myself or in a group. They tell you the learning intention and explain why you are learning something. It stops me mucking up and feeling embarrassed. When teachers do this, I can learn things we should do at High School. (Year 6)

2. What key factors influenced student engagement in learning?

Teachers wanted to know whether the changes in curriculum design and teaching methods had improved the engagement of students in learning. When interviewed, all participating teachers ($n = 7$) expressed the belief that integrative curriculum designs had the potential to positively influence student engagement in learning. Teachers reported that they linked school learning to “real world” contexts that they negotiated with the students ($n = 6$), and planned opportunities for students to “make a difference”. One teacher commented that achieving connection with real-world contexts required careful management with junior children, as they were “not skilled at questioning”. The

Teacher Response



Connecting the learning in the classroom with real events and community people engages children. In one case, a newspaper story provided a direct link a personality and a name they knew from their own community.

Opportunities for self-selected learning are important. The science table connects to what is going on in class. The children can read, do, watch or not engage at all.


school used cross-age co-operative groupings and student focus groups to encourage younger students to participate more in developing themes arising from their own questions and concerns.

All participating teachers ($n = 7$) believed that the ways they had developed integrative curriculum design had built effective links with the cultural contexts of students' lives. Teachers reported that needs and interests now "drive units", which are "built on relationships—knowing the children and their whānau". One teacher commented further:

We are not doing this because [students] happen to be Asian or Pākehā or Māori, we are doing [the unit] because [students] asked the questions.

One teacher's autophotography and photo elicitation response about student engagement (shown below) provided an example of embedding cultural contexts in the units studied.

Teacher Response



The Kotahitanga theme engaged the students by using cooperative learning tasks across the whole school. The kids had to make Maori artefacts using the materials and technology of the time. It was engaging because the tasks became achievable if they worked together in their groups. They needed to think about the process—how do you cut flax without scissors? The tasks were challenging and the kids needed to stick at it.

All seven teachers described improved levels of student engagement in terms of changes they had noted in students' learning behaviours. The indicators used to describe improvement were:

Students are more responsive to teacher expectations. ($n = 3$)

They are taking more pride in their work. ($n = 1$)

Students have greater self-esteem/confidence. ($n = 1$)

They are involved in self-motivated learning. ($n = 1$)

Students more-open-minded about possible contexts for learning ($n = 1$)

Students willing to take risks. ($n = 1$)

One teacher described a shift in student culture:

They've come in here to do something and they've come in to do it well.

During interviews, teachers provided reasons for the improvement in student engagement that were related to the integrative approaches used: "topics are real", students "can set their own learning goals", and students had "genuine audiences for their work". Teachers' own autophotography and

photo elicitation responses identified elements of teacher practice that supported student engagement in learning.

Teacher Response



It's about teachers doing less talking and letting the kids do more thinking. A guided reading session for the purposes of designing and making connects with the diversity of students' questions, the self-driven, so-what questions.

This student won a literacy prize at the end of the year. The student was involved heavily in computer programming and ICTs. Involving students in curriculum integration engages students and extends their learning into areas such as literacy and numeracy.

Teacher Response



Cooperative learning is engaging for nine out of ten kids. Smaller groups work well. The children maintain enthusiasm and stay focussed as they discuss their plans and complete tasks.

Students engage by working with others. The children in my class accept this as a normal part of their working routines. They can choose who they discuss their ideas with. I'm not sure on what basis individuals make their decisions and I'm not sure that matters.

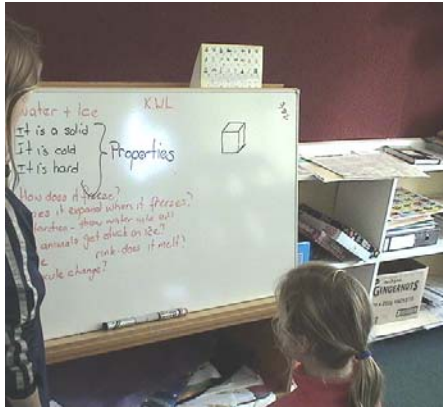
Six teacher responses also noted improved student behaviour and linked this to improved engagement in learning:

Fewer children's names are constantly mentioned.

Peripheral behaviours have disappeared because they're more involved with their learning.

What they say is valued. They don't feel the put downs ... the fear of not achieving, so their behaviour is better.

Teacher Response



Providing time and opportunity for children to discuss their thinking enables diverse directions to emerge from an initial focus.

Refocusing directions after three to four weeks into a unit of work enables children to drive their learning. When we get to that point – whoosh-learning takes on a life of its own.

Students' responses

Student interview responses affirmed teachers' perceptions of making connections with the cultural contexts of their lives. While student groups identified additional features such as Māori tutors and kapa haka in their learning programmes, they also reported that units of work always included things Māori. Students also said that they had developed good relationships with their teachers, and that their teachers encouraged them and listened to them.

Students' perceptions played an important part in helping teachers to understand what factors motivated them and to develop social norms that supported learning. What students liked or disliked about school also had potential to clarify the factors likely to influence engagement in learning.

Student responses during both group interviews and autophotography and photo elicitation interviews were enthusiastic and detailed across all age groups. When students discussed what they liked about "topic time", the time allocated in classroom programmes for integrative units of work, they could recall unit themes across two or more years, and identified learning activities and teaching practices that kept them interested at school:

Interviewing people and completing hands on activities.

Having choices in our learning.

Topics related to real life.

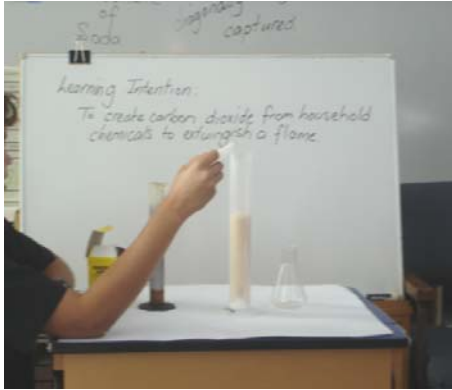
Making documentaries.

Learning new skills.

Fun doing hands-on topic work.

Using computers for presenting work/PowerPoints.

Student Response



Teachers expect me to make and do either by myself or in a group. They tell you the learning intention and explain why you are learning something. It stops me mucking up and feeling embarrassed. When teachers do this, I can learn things we should do at High School. (Year 6)

The few comments students made during interviews about things they did not like about school or learning focused on learning skills they had not yet mastered—for example, “I don’t really now how to write information in my own words”.

Students’ autophotography and photo elicitation responses identified that using their strengths ($n = 4$), working co-operatively in groups ($n = 6$), being a role model for younger children ($n = 2$), and doing art kept them interested or engaged in learning.

Student Response



Group work keeps me interested. We learn to work with others. We can all do better work because others in the group can help me and I can do the same for them. (Year 6)

I like working in groups. Its “funner” to work with your friends. We work on each others’ weaknesses and strengths. (Year 7)

Working in groups keeps me interested because when we work in groups we get more. Even little kids come up with good things that can be really helpful. (Year 8)

When we work in groups, we get to experiment instead of just looking. You get more detail. Groups give room for different roles. I didn’t want to touch this stuff- it looked disgusting- so I was the recorder instead. (Year 8)

Student Response



I like teaching and working with little kids- you get to see how their minds work. It's good to see what they come up with. I have developed skills to do this. I can get their opinions and let them do things bit by bit. I am a good role model and they can work cooperatively with me. (Year 8)

In their autophotography and photo elicitation responses students also described teaching practices they did not like, or things they did not enjoy about school. Three responses focused on teaching behaviours, one student thought there was not enough time spent at school, and one thought that not all learning activities would be fun for everyone. Two students decided not to take photos to show what they did not like about school, saying that they could not think of anything.

Student Response

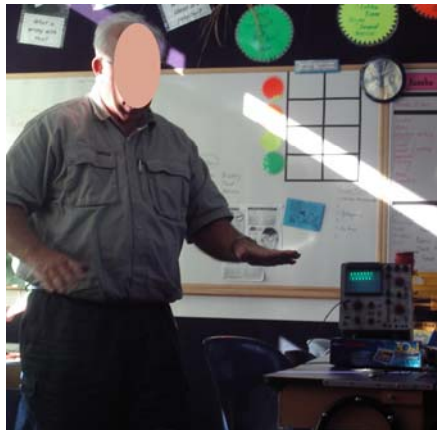


I took this photo of the playground because I'd like the school to be open at weekends so I'd have more time to learn. I come here sometimes with my family at the weekends. It's always bare, no one is here and schools should have people in them. (Year 6)

3. What was the extent and nature of community involvement and participation in student learning?

Teachers anticipated that the development of integrative approaches would provide a vehicle for strengthening participation, because they had organised more opportunities for parent/whānau involvement as part of their unit planning. During the initial planning the teachers invited students to suggest whānau/community members who had specific areas of expertise, or community resources that might support the learning themes. The autophotography and photo elicitation response below provides an example of the kinds of community expertise identified and used in the school.

Teacher Response



Community members share their expertise with the children. One community member shared his expertise about a radio oscilloscope. The children went on to construct crystal radios under his guidance. The parent now has an on-going relationship with the school.

We use experts from the community to support learning. Sometimes others can be more powerful than the teacher.

Each integrated unit concluded with an open day. Teachers and students prepared an exhibition of student work in a double classroom space. Students explained and demonstrated the learning they had been involved in over the term to their parents and whānau. The open days grew to incorporate day and evening sessions, enabling more parents and whānau to participate. These open days were a key means of increasing the involvement of parents/whānau in the learning of their children.

In 2003 the school established a system of consulting formally with parents/whānau once each term, with feedback provided to the Board of Trustees through principal reports. A survey conducted in Term 2 of 2004 indicated that parents/whānau:

- felt welcome in the school (62 positive responses, 0 negative responses);
- were well informed about the academic progress of their children (47 positive responses, 9 negative responses);
- supported the direction taken with thinking skills and problem solving (73 positive responses, 0 negative responses); and
- liked the direction taken with curriculum integration (72 positive responses, 4 negative responses).

Teachers' responses

Teachers commented:

[There is] a lot more [involvement of] grandparents, aunties, not just direct whānau, the wider community are coming into the school.

I have seen parents that you would think have no interest in what their children are doing, coming along and taking part.

I think they feel more valued because their children are valuing the knowledge from home.

Teacher Response



Open Days involve parents in the showcasing of their children's work. One parent said that the Kotahitanga display was "as informative as Te Papa, if not better".

All family members are the audience for the work the children do at school. The children have real purposes and real audiences with whom to share their work. Not only do parents see their own child's work – they see the work of other children, and this helps to lift expectations.

The parents appreciate the opportunity to learn about their children's work and the children appreciate the involvement of their parents.

Teacher interview responses indicated that parent/whānau participation focused on student learning. Forms of participation were: volunteering (recruiting and organising parent help and support); learning at home (providing information for families about how to help students with curriculum-related activities); decision making (including parents in school decisions); and collaborating with the community (identifying and integrating the resources from the community to strengthen the school).

Teachers also considered that integrated curriculum designs had provided the means of increasing parent/whānau participation in their children's learning. Six responses indicated a belief that whānau involvement and parents' knowledge about their children's learning had grown. One teacher commented:

Now they come to parent interviews and you are saying 'Hey, this is a need' and they are saying 'Well, what's the next step?'

Students' responses

Responses from student group interviews, autophotography, and photo elicitation also indicated the importance of the open days as a means of getting parents/whānau to participate in their learning. Students also identified school trips and out-of-class activities as events that involved their whānau.

Student Response



My family get involved in the Open Days at school- they come all of the time. They are impressed with my work- they can't believe I do such good work. Doing the work and setting the place up is worth it because you know you are going to have an audience. (Year 8)

My parents come to the Open Days. It's hard for them to be involved in other ways because they work. It gets them into the interesting work and the wondering that I do. (Year 7)

My family comes to the Open Days. They like my work. They learnt that I focused on quality work instead of talking all day. (Year 4)

Student Response



Having family days helps parents to be involved. On our trip to the beach, parents had to persevere with you to make sand whales. The whole school with their families made our school seem like a family school. (Year 8)

4. *What relationship, if any, was there between the changes made by teachers with the development and use of integrative designs and alternative pedagogical approaches, and learning outcomes for students?*

The professional development undertaken in 2004 aimed to: change teacher practice, improve student engagement in learning; and increase parent/whānau participation in ways that would improve outcomes for students. The research project was intended to enable the school to explore the possible linkages between the changes that had been made and student outcomes.

Teachers' responses

Individual teacher interview responses ($n = 6$) indicated the belief that their efforts to develop integrative curriculum designs, combined with different pedagogical approaches, would result in positive learning outcomes (one teacher, however, was unsure: "Some kids will fall through the cracks anyway"). Their reasons were related to the increased levels of student participation and engagement in their learning:

Learning was driven by children.

It's a total learning environment ... the kids really enjoy sharing it: 'Hey, did you know a snake can swallow a rat?' That's what's in the playground.

Children are proud of their work, can demonstrate and talk about their learning

Children know their own learning goals.

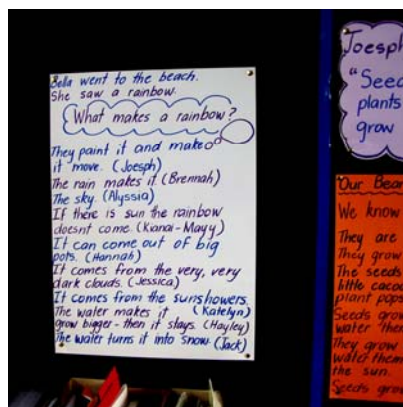
Children know the purposes for learning.

Children taking responsibility [for learning].

Children have a lot of choices.

In individual interviews teachers ($n = 7$) reported that the changes they had introduced (for example, planning unit themes with students based on their questions, and the emphasis on working towards open days) had positively influenced the learning behaviours of students.

Teacher response



Answering children's questions helps children to achieve. Learning becomes real and has importance for children.

Teachers described a range of indicators that supported their views:

Students are more positive about learning.

Increased engagement in learning. (n = 3)

Greater use of and understanding of learning skills and strategies including research skills and questioning. (n = 3)

One teacher also remarked, “Kids are blossoming because they’ve found ways to do things.”

Interview, autophotography, and photo elicitation responses revealed what teachers saw as the barriers to improving student learning outcomes. These barriers focused on aspects of teaching and learning within the classroom and the school, rather than on the students and the community. For example, teachers reported that having relief teachers in the school affected student learning, as new relief teachers did not know how the school worked. Teachers also recognised the need to support new students in learning the ways of working within the school. One teacher noted that staff tended to take some things for granted:

When new kids enrol and you do some co-operative learning, it hits you, the skill level our kids have got and how much we need to do with new kids to help them learn those skills.

Teachers also said that some factors (for example, limited space, teaching materials, and time) had a negative influence on what they could do as teachers to enhance learning outcomes for students. The school identified the need to plan more effectively, in order to ensure that teachers and students had adequate physical and educational resources to support integrative learning and teaching approaches.

Teacher Response



We work well as a whole school, but available space dictates how this can be done. As our school gets more successful, we get more kids and there is not enough space. The effects of different teaching and changing roles contribute to the difficulties.

Teacher response



The resource room is a barrier. Our resources are all over the place. We don't know what's there. We don't have ready access to the resources we need to support our programmes.

A lack of networked computers is a barrier. We are constrained by the times the computers are available and this is a frustration for me and the children.

Students' responses

Students' autophotography and photo elicitation interviews illustrated examples of positive attitudes to learning, increased engagement, and greater use of learning skills and strategies.

Student response



Making a crystal radio was great. I chose this picture because this was something new - I've never done a project like this before. The whole class was involved and we all had our own parts to do. We planned our work using flow charts and took photos along the way. We do lots of new things like this at our school. (Year 6)

Data from STAR assessment

Teachers recorded results for the participating students from the Supplementary Test of Achievement in Reading (STAR), administered as part of the school's regular assessment programme. The STAR results in Table 6 show a range of shifts in stanine scores over the year, with one student maintaining the same stanine score and another regressing by one stanine.

Table 1 Results of STAR testing—School Two

Students (n = 8)	RAW SCORE		STANINE SCORE	
	March	December	March	December
Year 4	18	15	3	2
Year 4	38	43	7	8
Year 5	23	38	4	6
Year 6	32	41	5	6
Year 7	38	53	4	5
Year 7	46	53	4	5
Year 8	44	53	4	6
Year 8	60	61	6	6

Of the eight students, one scored well below average, one scored above average, and the remaining six had scores within the average range (although four of these were at the upper end of the range). Two students made gains of two stanines; four students made gains of one stanine, one student maintained the same stanine level, and one student dropped a stanine level.

Further analysis completed by the school (not detailed here) noted that gains made in raw scores were largely in the sub-test of paragraph comprehension. This was a major additional focus for professional development in the school during 2005. Teachers in senior classes linked their new teaching skills in the teaching of reading with the learning students were doing as part of their integrated units. The student autophotography and photo elicitation response that follows reports this link.

Student Response



Teachers help me with reading. The topics we read about are important and my teachers help me work out what words mean. They talk with us about the story- the talk is really important to see what the words mean. I like it when our reading is connected with the topics we are doing. (Year 4)

As previously discussed, the STAR results provide information about only some aspects of reading. The teachers acknowledged the inadequacy of this achievement measure, as it did not provide evidence of the broad range of learning outcomes they were seeking to achieve. The school had identified the need to review and refine its assessment systems. During 2005 it was developing a process for tracking student achievement in areas related to social and personal development and academic learning in integrative contexts. Teachers designed and trialled various progress indicators and portfolio assessment formats in order to be able to document a wider range of learning outcomes.

Summary

The research project aimed to learn about and describe changes after a period of curriculum innovation in 2004 with respect to the practice of individual teachers, the development of professional learning communities, student engagement in learning, community involvement and participation in children's learning, and learning outcomes for students. Involvement in the research project gave teachers a means of checking progress, and also provided forums to identify problems and find ways to solve them.

The qualitative evidence suggested strong links between the school's charter and strategic plan, the beliefs and philosophies held collectively and individually by teachers, and the curriculum, learning and teaching as experienced by students.

Teacher and student responses during interviews and autophotography and photo elicitation interviews provided complementary evidence. Teachers and students commented on similar aspects of learning and teaching structures and activities, and also identified similar key features of their school in relation to the involvement of parents and whānau in learning. Of note was the students' ability to articulate their views about what they liked and did not like about the school. Overwhelmingly, their talk focused on factors related to learning. The development of integrative curriculum designs and supporting pedagogies had moved from "being regarded as something new" to becoming "part of the school's usual way of doing things" (Hopkins et al., 1994, p. 38).

The qualitative evidence suggested the development of participatory ways of working within the school's community. Teachers had developed a strong professional learning community, with a collective focus on and shared expectation about student learning. Teachers routinely worked together to plan for learning and to work with students in cross-age/class teaching activities, utilising each other's different knowledge and skills. Teachers increasingly engaged in reflective dialogue, and deepened this process through participation in the activities of the research project.

Teachers worked closely with students to develop units of work that connected to students' interests and concerns and their lives outside of school. Students recognised this as being different from what they might experience in other schools. They noted that many activities (such as whole-school co-operative learning activities and open days) did not happen in other schools, and that they worked better because they were asked about what they wanted to learn and how they could improve their learning.

Parents/whānau were also active participants in the school. Opportunities such as open days and feedback forums enabled parents/whānau to have an active role in strengthening their involvement in their children's learning.

The research activities provided interim indications of improved learning outcomes for students. Generally, reported levels of student engagement were high and teachers were able to discuss during interviews their perceptions of enhanced learning outcomes. At the time of the project, the school was unable to substantiate these interim indicators, but acknowledged the need to develop assessment systems and processes that would allow them to do so.

Teachers' recommendations

The teachers developed their own set of recommendations as outcomes of the research activities, which they intended to incorporate into their planning for 2006.

1. Plan professional development opportunities that clearly link to goals 1 and 5 of the charter and strategic plan (such as: "Students and teachers ... will have strong literacy and numeracy skills"; and "Students and teachers ... have opportunities to participate in local tikanga and te reo").

When teachers collated autophotography and photo elicitation responses they reported that these goals had not been adequately met.

2. Continue to develop curriculum designs and pedagogical approaches to ensure meaningful and relevant hands-on learning for students.

Teachers considered that continuing and strengthening students' involvement in planning units and themes was essential for achieving this.

3. Provide more time for teachers to engage in collaborative planning each term.

One suggestion was to close the school early for one day each term, to allow time for planning and professional learning.

4. Review and redevelop some of the data-gathering methodologies used in the research project (for example, classroom observations and autophotography and photo elicitation interviews).

Teachers identified the potential benefits of deprivatising teaching practice as an opportunity for professional learning. They also valued the input of student voice provided by the autophotography and photo elicitation interviews, and decided to include this in future review and feedback processes, in order to ensure a better negotiation of curriculum, learning, and teaching.

5. Develop and use databases of whānau and community expertise to further strengthen community involvement with students' learning.

6. Continue to refine and develop the open days held at the end of each term.

The students also made this recommendation.

7. Develop induction programmes for new staff (including relief teachers) and new students.

The teachers recognised that, while new teachers had an induction programme, new relief teachers and new students did not.

8. Develop a property and resourcing plan with the Board of Trustees.

Teachers and students needed access to adequate spaces and resources for teaching and learning.

Students' recommendations

Teachers also listened to feedback and recommendations from students.

1. Teachers should maintain a "strict but fair" approach, encouraging all students, while also letting them have fun.

Students identified "having fun" as having choices about learning topics, and teachers and students learning or doing things together.

2. Teachers should include more out-of-class activities, hands-on activities, art activities, and co-operative learning activities in unit planning.

3. Teachers should use learning intentions more, to develop clear learning progressions and expectations with students.

Summary of findings

The research data provide a picture of what was going on in each school, after a year of intensive professional development that explored integrative curriculum designs and pedagogies. Both schools had implemented changes to the ways they designed curriculum and learning and teaching experiences for their students, and both schools wanted to understand the effects of these innovations on student engagement, community involvement, and student learning outcomes.

Hopkins et al (1994) describe the process of change as non-linear, occurring over time, and comprising the three overlapping phases of initiation, implementation, and institutionalisation. The development and use of integrative approaches to curriculum design and delivery was at different stages in the two schools, and this was reflected in differences in the depth and focus of the responses from the teachers and students. The findings relating to School One, which was at the stage of initiating and implementing change, showed a focus on the managerial and organisational aspects of the change process. The findings from School Two, which was at the stage of implementing and institutionalising change, indicated a stronger focus on teacher practice and student achievement.

Despite these differences, qualitative evidence from both schools showed some similar trends. The development of integrative approaches to learning and teaching had shifted or was shifting teachers' professional practice. Teachers had developed or were developing shared understandings about the nature of curriculum and its design, and its implementation in practice. Teachers reported enhanced levels of collaborative work as a result of sharing their expertise, as they planned units of work together and engaged in school-wide professional development initiatives. Increasingly they focused their thinking on constructing their practice in ways that would enhance student achievement. Teachers were engaging more in activities that deprivatised their practice and required reflective dialogue. Thus, the practice of professional learning communities developed in each school.

Teachers associated the reported improvements in student engagement in learning with the development of integrative approaches to learning and teaching. The integrative approaches that teachers developed were intended to organise learning around personal and social issues, problems, and concerns identified in or developed from the lives of students in the world in which they lived. When planning units, teachers used student questions as the basis for decision making about the contexts, content, and directions for learning, although they did this differently in each school. Teachers planned to incorporate explicit skill teaching to enable students to understand and use their own knowledge about how to proceed with learning. Students, especially in School Two, articulated their knowledge about what worked for them as learners, and what they were getting better at, as they engaged in the integrated learning experiences.

Teachers in both schools reported holding higher expectations about students. They came to believe that students were capable of doing more than the previous teaching and learning approaches had allowed them to demonstrate. As students investigated topics that were real and important to them, their motivation and engagement improved. This, in turn, had a positive effect on teachers' expectations, and encouraged them to strengthen their explicit teaching of learning and thinking skills.

Both schools pinpointed the need to improve the participation of parents/whānau in the learning of their children at school. Table 7 summarises the kinds of parent/whānau involvement and participation at each school. While School One made only limited improvements, School Two used the frameworks of their integrative curriculum designs to build regular opportunities for students to share their work and learning with their families. The open days held at the school each term

provided opportunities for parents/whānau to build their knowledge and understanding about the learning of their children at school, and gave the school more openings to seek their feedback and input for future directions.

Using informal indicators, teachers in both schools reported improved student learning outcomes for levels of engagement, motivation, learning behaviours, and skills. The indicators describing improved outcomes were interim at best. The absence of hard data remains an issue for both schools.

Table 2 **Forms of parent/whānau participation, Schools One and Two**

TYPES OF PARTICIPATION	
SCHOOL ONE	SCHOOL TWO
PARENTING: Helping all families to establish home environments that support children as learners	
Both schools developed programmes and opportunities to work with parents to establish effective learning supports in the home	
COMMUNICATING: Designing effective two-way communications about school programmes and children's progress	
An informative newsletter is sent home regularly Learning is not necessarily the focus of newsletters, although work samples are included Low parental participation in reporting at parents' sessions	Newsletters are linked directly to school goals Most newsletter items are linked to student learning Regular opportunities for parents/whānau to view and discuss the products and processes of student learning through open days
VOLUNTEERING: Recruiting and using parents to help and support learning	
Parental help is a feature of junior school classrooms	Parental help is a feature of all classrooms
LEARNING AT HOME: Providing information for parents about how to support learning at home	
A feature in the junior school, especially with respect to literacy	Student portfolios and interviews, focused on current achievement and next-step learning Parents are informed about how they could support learning
DECISION MAKING: Including parents in school decisions	
Parents are viewed as uninterested Some parental involvement in decisions through the Board of Trustees	Parents are consulted each term Parent forums are well attended. School uses these to seek feedback about changes
COLLABORATING WITH THE COMMUNITY: Identifying and integrating community resources and services into learning	
Community experts and resources are utilised to a limited degree in learning programmes Limited opportunities to interact with children's learning at schools	Community experts and resources are utilised deliberately and regularly in learning programmes Open days provided opportunities for interaction with children's learning

This report has 4 documents:

1. http://www.tlri.org.nz/pdfs/9227_finalreport_1.pdf
2. http://www.tlri.org.nz/pdfs/9227_finalreport_2.pdf
3. http://www.tlri.org.nz/pdfs/9227_finalreport_3.pdf
4. http://www.tlri.org.nz/pdfs/9227_finalreport_4.pdf