

Schools' Provision for Gifted and Talented Students:  
Good Practice

June 2008



# Ko te Tamaiti te Pūtake o te Kaupapa

## The Child – the Heart of the Matter

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We welcome your comments and suggestions on the issues raised in these reports.



## Foreword

The New Zealand Government has grouped its priorities and activities under three themes:

- Economic transformation
- Families, young and old
- National identity

The Education Review Office (ERO) contributes to these themes through its role of reviewing and reporting on the quality of education in schools and early childhood education services.

ERO's whakataukī demonstrates the importance we place on the educational achievement of our children and young people:

*Ko te Tamaiti te Pūtake o te Kaupapa*  
*The Child – the Heart of the Matter*

In our daily work we have the privilege of going into schools and early childhood services, and this gives us a current picture of what is happening throughout the country. We are then able to collate and analyse this information so that it can be used to benefit the education sector and, therefore, the children in our education system. ERO's reports contribute sound information for work undertaken to support the Government's themes.

A priority for the Government is that young people in New Zealand achieve to their potential. This report outlines the good practice found during our reviews to help school boards of trustees, principals and staff think about how they might apply the findings and ideas in their own schools.

ERO's report, *Schools' Provision for Gifted and Talented Students, June 2008*, discusses the education of students with particular gifts and talents and how well schools provide for this particular group of students. This companion report on good practice was written to help school boards of trustees, principals and staff think about how they might apply the ideas in their own schools.

The successful delivery of education relies on many people and organisations across the community working together. We hope the information in this booklet will help them in their task.

Graham Stoop  
Chief Review Officer

June 2008

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## Introduction

National Administration Guideline (NAG) 1 (iii)c requires boards, through their principal and staff, to use good quality assessment information to identify students who have special needs (including gifted and talented), and to develop and implement teaching and learning strategies to meet the needs of these students. Schools were notified about the inclusion of gifted and talented students in this NAG in December 2003, and have been required to implement gifted and talented provisions since Term 1, 2005.

In 2007 the Education Review Office (ERO) evaluated the provisions for gifted and talented students in 315 schools. Of these, 261 were primary, and 54 were secondary schools.

The schools in this evaluation were at various stages. Many had developed an understanding of gifted and talented education (GATE), and had implemented programmes that were beneficial to gifted and talented students. A few schools were just beginning to make special provision for gifted and talented students.

In over half the schools, school leadership supported the achievement of gifted and talented students, and this foundation was beneficial to their provision. Almost half of schools had inclusive and appropriate definitions and identification processes, and responsive and appropriate provision and programmes for gifted and talented students. Almost a quarter of schools had developed processes for reviewing the effectiveness of their provision. Nearly half the schools promoted positive outcomes for identified gifted and talented students.

A group of schools was particularly effective in providing for gifted and talented students. These were characterised by having:

- school leadership that was knowledgeable about provision for gifted and talented students and supportive of them;
- staff that had participated in school-wide professional development on gifted and talented education (GATE);
- well-developed procedures for communicating, consulting and collaborating with the school community about all aspects of their provision for gifted and talented students;
- well-defined and implemented policies and procedures about defining and identifying gifted and talented students;
- responsive and appropriate programmes and provision for gifted and talented students;

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- effective self review of their provision for gifted and talented students, using evaluation information to ensure programmes met identified needs; and
- promotion of positive outcomes for gifted and talented students, including help to achieve, and nurturing of social and emotional well-being.

The examples of good practice in this report come from seven schools representing a range of schools in New Zealand. They are presented in the same framework used for ERO's 2008 evaluation report, *Schools' Provisions for Gifted and Talented Students*, so readers can use both reports together.

## Methodology

### EVALUATION APPROACH

ERO used the following five evaluation questions when gathering information for this study:

- How well does the school leadership support the achievement of gifted and talented students?
- How inclusive and appropriate are the school's processes for defining and identifying giftedness and talent?
- How effective is the school's provision for gifted and talented students?
- How well does the school review the effectiveness of its provision for gifted and talented students?
- To what extent do gifted and talented programmes promote positive outcomes for gifted and talented students?

### DATA COLLECTION

The information for these examples has been drawn from data collected for the evaluation report *Schools' Provision for Gifted and Talented Students*. ERO supplemented this information by following up specific areas of effective practice identified by ERO in the earlier reviews.

## Case studies

This section presents each of the seven schools as a case study focusing on the five evaluation questions. ERO's indicators of high quality practice used by review officers are included in *Appendix One: Self-review questions and indicators for your school*.

### WEAVING GATE INTO THE FABRIC OF THE SCHOOL

Mangapapa School is a decile 5, contributing primary school in Gisborne.

In 2007 the school's roll was just under 450 students, of whom 58 percent were New Zealand European/Pākehā, and 40 percent Māori, with the remaining two percent from other ethnicities.

The school had been part of a GATE cluster for seven years when it was reviewed, and was nearing the end of its second Talent Development Initiative (TDI)<sup>1</sup> contract with the Ministry of Education. The provision for gifted and talented students was fully embedded in the school culture and practice. The deputy principal who was fully released from the classroom had responsibility for coordinating all GATE programmes and attending GATE cluster meetings. The principal and board of trustees were very supportive and provided a dedicated budget for GATE each year, ensuring provision was sustained and promoted.

The school had three levels of provision for gifted and talented students. The school's first priority was to cater for these students in their regular composite class. This was supported by out-of-class programmes in the school and then by programmes offered by the GATE cluster.

#### School leadership

The school philosophy actively acknowledged students' special abilities, focused on a commitment to achievement, and promoted a reflective culture amongst teachers.

A school-wide understanding of GATE had been developed over the last 10 years by the principal and deputy. The deputy principal had led the development of good policies and guidelines, and ensured staff and community expertise was used well to support gifted and talented students.

The school's involvement in the GATE cluster had built teacher capacity and understanding through participation in professional development. The deputy principal had participated in five years' professional development through Gifted Education Advisory Support.<sup>2</sup> This also included a school-wide three-day workshop on GATE. In addition to this, there had been school-wide professional development on curriculum

<sup>1</sup> See *Appendix Two: Glossary*.

<sup>2</sup> See *Appendix Two: Glossary*.



differentiation, and members of the senior management team, or individual teachers, had had professional development on in-class provision for gifted and talented students, thinking skills,<sup>3</sup> mentoring, and had attended Ministry of Education GATE conferences.

With knowledge about provision for gifted and talented students embedded, the school then focused on developing a Thinking Skills and Inquiry model. Teachers' and students' learning about this model, and accompanying resources, were built up over time to develop a particular concept about learning in their community. The collaborative nature of the development of this concept, because of the principal's ability to develop leadership and share decision-making, meant that teachers supported this professional development and made subsequent improvements to their teaching practice.

In addition to building teacher capacity, the school had excellent communications and relationships with their parents, whānau, and community. The deputy principal worked collaboratively with parents and teachers to foster open communication and build strong relationships. The main ways of communicating with parents and whānau were through interviews with parents of gifted and talented students, and hui. There was a strong commitment by the board and staff to develop and maintain a partnership between the school and the Māori community, and the success of this was demonstrated by the attendance of 90 percent of Māori parents and whānau at hui.

### Defining and identifying

The school's definition of gifted and talented students reflected its philosophy of acknowledging and committing to the achievement of students with special abilities. The definition recognised special abilities that were cognitive, social, emotional, spiritual or physical. The school developed its definition over time, drawing on learning from professional development, Ministry of Education and other GATE publications, and consultation. The definition included the qualities and abilities valued by the school community. As part of a GATE cluster, they also worked with other schools to establish a common understanding of defining and identifying a range of gifts and talents.

The school's identification of gifted and talented students was ongoing, multi-categorical,<sup>4</sup> and included formal and informal methods. These included:

- historical information drawing on previous school or early childhood records;
- Teacher Observation Scales;<sup>5</sup>
- in-class observations and assessment – based on teachers' professional knowledge, in particular a specialist Arts teacher;
- work samples and portfolios;
- standardised tests (not a strong emphasis);

3 See Appendix Two: Glossary.

4 See Appendix Two: Glossary.

5 See Appendix Two: Glossary.

- self, peer, and parent nominations;
- interviews with students and parents; and
- psychological testing.

The school had a flowchart of the identification process and subsequent programme development for each student. The deputy principal liaised with teachers, and involved parents in any discussions. Students who were identified were placed on a register and were monitored by the school's Pathways to Learning team. This enabled the recognition of gifts and talents among the school population and across a range of giftedness and talent, and also monitored student outcomes and progress.

#### Programmes and provision

Gifted and talented students were not streamed, but placed in composite, mixed-ability classes in junior, middle, or senior syndicates. The predominant teaching strategy to cater for these students in their regular classroom was cooperative grouping. Students were grouped for ability in literacy and mathematics. Teachers included either enrichment and acceleration,<sup>6</sup> or a combination of both. The school-wide implementation of thinking skills as a teaching strategy provided variety, challenge, choice, complexity, and provision for differing interests, learning styles, and pace. Students talked confidently about using thinking skills to develop prediction, imagination, and quick thinking. They were encouraged to ask questions.

Programmes outside the regular classroom enhanced classroom learning. These included an arts programme, e-learning extension, many sporting opportunities drawing on teacher and parent expertise, academic extension classes, and a developmental programme in the junior syndicate (see below).

The board funded a full-time specialist arts and music teacher to provide further extension for gifted and talented students, and to provide specialist help to teachers. This specialist teacher facilitated music, visual arts, dance, drama, choir, and orchestra workshops on a weekly basis. These were regarded well by the students, teachers and parents. The standard of presentation was very high. Many visiting artists and performers came to the school, and gifted and talented students attended out-of-school concerts, exhibitions, and competitions. Individual talent was fostered and celebrated, with parents stating it was one of the reasons they chose the school for their children.

6 See *Appendix Two: Glossary*.

The board funded an Information and Communication Technologies (ICT) teacher (0.2 FTE) to provide an e-learning programme to develop computer skills and experience with small groups of gifted and talented students who became peer tutors. The programme also included website design and, for senior students, entry to the New Zealand Web Challenge Competition and increased students' knowledge and skills in this field.

The junior syndicate developmental programme involved a group of Year 1 students in a range of learning experiences, using a variety of materials and resources to build on known skills or to develop untapped potential. Students worked together on a project to demonstrate skills and talents, to experiment, and to use opportunities to show creativity. Parents with particular talents were mentors for each activity. Junior syndicate teachers found the programme useful for identifying talents and interests.

The GATE cluster provided a wider range of opportunities over a period of time to develop particular gifts and talents. These included:

- literacy circles;
- investigative museum research;
- mathematics problem solving;
- leadership skills – from which the school planned to develop its own school council;
- conceptual planning;
- fabric making;
- food technology;
- chess;
- visual and performing arts; and
- a mentoring programme for fathers and sons.

Provision for gifted and talented students was regularly tracked in the GATE register, and reported to the board and to parents in parent-teacher meetings. Parents were updated on opportunities through the school newsletter, and met teachers to discuss the needs of their child and plan further opportunities.

#### School self review

The school understood and valued self review. The leadership team and teachers used both formal and informal self-review processes to evaluate the outcomes for gifted and talented students. They continually developed their provision using information gathered from meetings, parent and student feedback, whānau hui, and parent/teacher surveys.

At a classroom level, teachers regularly reviewed and reflected on their teaching practice. As part of a GATE cluster they had regular Ministry of Education reviews at set milestones. These reviews focused on a learner-centred, self-paced, integrated approach,<sup>7</sup> opportunities for mentoring, the inclusion of cultural identity, and curriculum differentiation. Cluster programmes had built-in evaluation opportunities for students at the mid and end points of programmes. Changes were made to cluster provision, including the range and duration of programmes.

The school regularly reviewed its gifted and talented policies. This review, along with other self-review activities, resulted in a well-developed annual action plan, with intended and actual outcomes monitored. Recent changes included adapting the school's reporting system to improve reporting on outcomes of GATE programmes, particularly through e-portfolios and student-led conferencing. The school leadership encouraged teachers to actively respond to the outcomes of self review, adapting programmes as appropriate.

#### Student outcomes

Gifted and talented students at this school were happy and engaged in their learning. They enjoyed the way the school grouped "like-minded kids together." Students reported that their teachers made learning fun, gave them lots of choices and opportunities including sports, cultural and arts activities, and technology. They said they felt challenged and supported. They knew they had talents, but felt fine about asking for help in other areas. When teachers let them work at different levels in the class they felt they were able to take responsibility for their own learning, and the teachers encouraged them to do this through thinking skills, inquiry learning,<sup>8</sup> and questioning skills.<sup>9</sup>

Students enjoyed participating in GATE cluster programmes as it allowed them to make new friends, teach each other, improve their self esteem, share ideas, learn new things, and feel safe. When ERO talked to gifted and talented students they were able to identify and speak about the positive outcomes of their participation in GATE programmes for their learning, social skills, and self esteem. A four-day cluster camp enabled students to build skills and develop relationships that were continued through subsequent programmes.

Parents stated that the school's academic, cultural, and sporting programmes were supportive and inclusive. They felt able to discuss their child's strengths and weaknesses with teachers, and they felt informed about their child's progress. The school nurtured their relationships with parents by organising and inviting parents to GATE seminars and presentations to provide them with information and skills.

7 See *Appendix Two: Glossary*.

8 See *Appendix Two: Glossary*.

9 See *Appendix Two: Glossary*.

The school's strong nurturing philosophy was reflected in well-established beliefs and a vision about gifted and talented students, the many ways of achieving and celebrating success, and a strong focus on students' wellbeing.

### GATE IN A CLASSROOM SETTING

Knighton Normal School is a decile 6 contributing primary school in Hamilton.

In 2007 the school's roll was about 650, of whom 35 percent were Māori, 34 percent New Zealand European/Pākehā, eight percent Pacific, eight percent Asian, and seven percent African, with the remaining eight percent from various other ethnicities.

The school leadership was highly committed to gifted and talented education. The deputy principal undertook the role of GATE coordinator, and was supported by a team of five GATE cluster teachers in the senior and middle syndicates.

Many gifted and talented students in Years 3 to 6 were clustered in four classes in the school. Years 1 to 2 gifted and talented students were provided for through differentiated classroom teaching, as were students in partial-immersion Māori classes. The school also offered programmes outside the regular classroom.

### School leadership

The principal was knowledgeable and supportive of GATE. His leadership was flexible and adaptable. Teachers at the school were able to take risks in their teaching, adapt programmes, and be innovative. The leadership team was well informed about GATE and the school's provisions were based on sound research and theories about education for gifted and talented students. The team met regularly to discuss developments and ensure they were continuing to meet the needs of their gifted and talented students.

Originally, for a period of time in the late 1990s, the school ran withdrawal programmes. Students were chosen to participate for their behaviour (good or bad) rather than for their identified gifts and talents. A meeting with parents highlighted that the school was not catering for all children, and parent consultation followed, together with research and further consultation with a university specialist in GATE. The school disliked the idea of a GATE class, and they decided to cluster 10 to 12 gifted and talented students in certain classes. Teachers felt that this clustering of like minds would provide an academic and social peer group for the students, while ensuring that their classrooms reflected the real world, and that they learnt to work with the full range of their peers.

Subsequently, the school was involved in school-wide professional development with a specialist GATE consultant. Further school-wide professional development was undertaken in inquiry learning, SOLO taxonomy,<sup>10</sup> goal setting, questioning and thinking skills. Cluster teachers participated in more professional development with Gifted Education Advisory Support, and in a series of workshops and seminars with an educational consultancy. Some staff had undertaken post-graduate study in GATE and attended GATE conferences.

The school's policies and procedures were inclusive and had been developed in consultation with all stakeholders. In line with the school's philosophy, the leadership team expected teachers to value diversity and to know their students. The philosophy encouraged teachers' and students' ownership of learning and an holistic approach to learning. The principal and board supported teachers and students through teaching and learning strategies and resources (including release time for specialist teachers).

The school maintained regular communication with GATE parents, made time to listen to them, and built strong relationships and partnerships with them.

### Defining and identifying

The school worked with its diverse community to include their values and understandings of gifts and talents in its definition. As a result, its definition was multi-categorical, recognised social and cultural perspectives, and the masking of gifts and talents. The definition included demonstrated or potential performance in one or more of: general intelligence, specific academic areas, visual and performing arts, psychomotor ability, leadership, creative thinking, and interpersonal and intrapersonal skills.<sup>11</sup>

The school had a documented identification process involving teachers, parents, the community, and students. Because of this, gifted and talented students reflected the wide diversity of the school community. Using a range of formal and informal methods the gifted and talented team identified students throughout the year. This process evolved and developed during various professional discussions. Originally it was limited to teacher nomination, and then extended to include parents, peers and self-nomination. Current identification included:

- formal methods
  - a checklist of traits and characteristics for talents and underachieving;
  - Teacher Observation Scales;
  - standardised achievement tests (NumPA, PAT);<sup>12</sup>
  - teacher-devised tests; and
  - School Entry Assessment and Six Year Net.<sup>13</sup>

10 See *Appendix Two: Glossary*.

11 See emotional intelligence in *Appendix Two: Glossary*.

12 See *Appendix Two: Glossary*.

13 See *Appendix Two: Glossary*.

- informal methods
  - teacher observation of behaviour, questioning, quiriness;
  - assessment;
  - portfolios;
  - cumulative school history;
  - anecdotal information;
  - interviews;
  - parent and whānau nomination (using nomination form asking about critical thinking, creative thinking, caring thinking);
  - recommendations from coaches and tutors;
  - peer nomination for Year 4 and older; and
  - student self nomination based on student interest.

In addition to this, gifted and talented students in partial-immersion reo Māori classes and other students interested in kapa haka were identified, particularly for leadership, performance oratory, and understanding of tikanga protocols. The gifted and talented team also recognised the need to develop better processes for identifying both ESL students<sup>14</sup> who were gifted and talented and those who were gifted underachievers. These students were not easily identified through traditional methods involving written tests. The gifted and talented team placed an emphasis on different ways of identifying gifted and talented students.

### Programmes and provision

School-wide coordination of the provision for gifted and talented students was very good. The placement of gifted and talented students with particular teachers and in cluster classrooms was a very deliberate process involving teachers and parents. Discussions with parents focused on why the student had been identified, and why the school would like to place him or her with a particular teacher or in a cluster class. At the request of their parents, some students were not placed in cluster classrooms or were provided for in partial-immersion Māori classes.

The gifted and talented team liaised with teachers to develop special programmes and also made suggestions for the teaching of identified children based on their particular needs and interests. Much of this took place in the regular classroom environment. Students were grouped in their class for literacy and, at Years 1 to 4, in mathematics. Year 5 to 6 students were cross-grouped throughout the senior syndicate for mathematics, including students in the partial-immersion Māori classes.

Cluster classroom teachers had special characteristics. This was an important element in the success of this provision. These teachers were:

<sup>14</sup> Students for whom English is a second language.

- good questioners;
- prepared to be challenged by the students;
- empathetic and understanding of the students' social and emotional needs;
- focused on the students' holistic development (strengths and challenges); and
- flexible in their delivery of the curriculum.

Regular classrooms were sites of good teaching and learning strategies that engaged students. For example, strategies included the use of explicit learning intentions,<sup>15</sup> questioning and thinking skills (readily visible to teachers and students alike through a rubric displayed in classrooms), the use of SOLO taxonomy, scaffolding,<sup>16</sup> and goal setting. The learning environment was student-focused and there were opportunities for students to pursue their strengths and interests.

In partial-immersion reo Māori classes, gifted and talented students were encouraged to develop their gifts and talents in developing tuakana-teina relationships, Wānanga (Māori oratory style of learning), and Te Ao Māori (the Māori world). Kaumatua from the school marae and experts from the community helped to provide these programmes.

The school also provided many whole-school and out-of-school opportunities for gifted and talented students. These included:

- orchestra, choir, and instrumental music tuition;
- dramatic and musical productions;
- dance;
- visual arts;
- student council and mediators;
- off-site music composition;
- a Correspondence School writing group; and
- participation in Australasian School competitions.<sup>17</sup>

The principal said that the school's main focus was to provide a regular classroom environment and programmes that met the needs of gifted and talented students all the time. The focus was on student individuality and diversity.

### School self review

This school had processes that contributed to the review of its provision for gifted and talented students. These included:

- cluster class teacher meetings to discuss the quality of programmes for gifted and talented students;
- weekly meetings to discuss students at risk – inclusive of gifted and talented students;
- an appraisal process where all teachers showed how they were catering for gifted and talented students;

15 See *Appendix Two: Glossary*.

16 See *Appendix Two: Glossary*.

17 See *Appendix Two: Glossary*.



- meetings with parents to review programmes; and
- identified performance indicators in the annual plan for review.

The gifted and talented and leadership team displayed a very good knowledge of the performance indicators and progress made against these. Through self review, the leadership team had recognised the need to consolidate all the school's professional development and to ingrain teaching and learning practice in classrooms. This resulted in teachers having time to reflect on what they had achieved and how they had adapted from teacher-directed learning to student-directed learning, in particular to the benefit of gifted and talented students.

### Student outcomes

Gifted and talented students enjoyed being at school. They said they were challenged and when talking about their learning they said it was interesting and fun. Students had respect for their teachers and said that teachers respected them too.

Members of the gifted and talented team commented that they wanted the students to be happy and challenged, engaged and making progress. They wanted to keep the students' inquisitive minds alive. "We want gifted and talented children to learn as gifted and talented children all the time. This is why we have cluster classes and why all teachers are trained in working with students with special abilities."

The emotional wellbeing of gifted and talented students was nurtured through excellent school pastoral care practice. A framework in the school's vision provided for the development of a common understanding and ownership of the school's priorities and educational direction.

This framework had four foundations:

- having good relationships (getting along with everyone);
- organisation;
- persistence; and
- confidence.

Students were given the strategies and skills for independent learning such as persisting and being able to cope with failure. The leadership team acknowledged the diversity of its school population, believing that to be different is to be normal, and recognising that being gifted and talented was another aspect of being different.

Parents of gifted and talented children felt well informed about their child's learning and progress. Teachers gave them formal information as well as speaking to them on an informal basis. The school leadership team ensured that its knowledge of a gifted and

talented student was passed on to intermediate schools. In addition, the school also held parent education evenings to build the knowledge and capacity of parents so they could advocate for their children, particularly in the transition to other schooling.

### GATE IN MIXED ABILITY CLASSROOMS

Kirkwood Intermediate School is a decile 6 school in Christchurch.

In 2007 the school's roll was just under 230, of whom 69 percent were New Zealand European/Pākehā, 18 percent Asian, and four percent Māori, with the remaining nine percent from other ethnicities.

This school took a strong team approach to coordinating gifted and talented education. The coordinating team included the principal, the deputy principal who was also the Director of Curriculum and Year 8 team leader, the Special Education Needs Coordinator (SENCO) who was also the Year 7 team leader, the school counsellor, and the technology team leader. The board had a strong interest in the provision. All teachers in the school were involved in classroom programmes for gifted and talented students.

Gifted and talented students at this school were catered for in mixed ability classes, with various out-of-class programmes and opportunities both in the school, and in the community, to meet the needs of these students.

#### School leadership

The principal had good professional knowledge of GATE and had developed sound philosophical understanding and practices based on gifted and talented theory and research. This knowledge and understanding led to the establishment of mixed ability classes. Previously, in the late 1980s, the school had introduced high ability classes, but the principal doubted the philosophy and reasons behind this approach. In 2002, the school went back to mixed ability classes with additional programmes outside the classroom environment.

The board was supportive of provision for gifted and talented students, even though there was some dissension about mixed ability classes. This school was only one of two intermediate or secondary schools in the city without streaming, and they had only one dedicated contributing school. The principal acknowledged he worked hard to develop a shared understanding about providing for gifted and talented students amongst the board and teaching staff.

Parents and the school community struggled with public perception about mixed ability classes. The principal, with board support, convinced the community this would be good for their children by talking, meeting, and discussing with them the implications of high ability classes, and presenting evidence through research and current theories. Some

teachers were not supportive and wanted to return to high ability classes as this would mean they would get more students into the school. Eventually a decision was made to provide the best for the students who were already at the school. A board representative said that parents were now convinced about the worth of mixed ability classes. Some parents had had children under both systems and did not want their children to go back to high ability classes.

The principal appointed a senior management team and teaching staff that supported the school's particular philosophy. With strong leadership, and community and board support, the school developed high quality policies and procedures for GATE. Decisions about provision were based on current educational research that stressed the importance of meeting the needs of gifted and talented students in the classroom.

To put this belief about classroom provision into practice, the senior management team modelled good practice, with classroom release time being used to work with individual teachers in the classroom. This led to improved teaching practice, planning and assessment. All teachers were trained in how to differentiate programmes to meet the needs of gifted and talented students. They also attended professional development sessions about GATE, and in particular about the learning opportunities available to students outside the classroom. The senior management team operated a programme to include new teachers that team leaders said were keen to learn how to teach gifted and talented students. This involved teaming up new teachers with a competent and skilled member of the senior management team.

A school counsellor, who was funded by the board through the operations grant, also supported teachers. She was available three afternoons a week to assist teachers with ideas on meeting the needs of gifted and talented students.

There was strong community involvement throughout the process of establishing a philosophy, and policies and procedures. The principal and senior management team consulted parents and the wider community, listening to their concerns and providing evidence to establish understanding of the school's philosophy on provision for gifted and talented students.

The principal said that a benefit of mixed ability classes was that all teachers had a stronger awareness of what was meant by gifted and talented. Teachers planned and implemented differentiated learning programmes to suit students, particularly gifted and talented students.

### Defining and identifying

The school recognised gifts and talents across many subjects, disciplines and interests. Similarly, they used a variety of methods to identify gifted and talented students throughout the year, and to develop a picture of each student. These methods included:

- information from parents about academic, cultural, and sporting abilities, gathered on a student information sheet, about students' needs;
- discussions about students' needs with contributing schools;
- standardised tests for mathematics and literacy with benchmarks to identify academically gifted students (STAR, GLOSS, asTTle);<sup>18</sup>
- teacher discussions and observations to identify students not achieving and also to remove some students identified in testing who were not gifted and talented; and
- teacher and student nominations for those with cultural and sporting gifts and talents.

The senior management team shared a belief that parents were very good at identifying whether their child was gifted or talented, and that they were realistic about their child's abilities. Most importantly this allowed for the continuation of programmes and ease of communication.

Once their children were identified and recorded on a register of special abilities, parents were contacted and the best course of action for the student was discussed. This might have included dual enrolment with The Correspondence School, withdrawal programmes, or outside agency support. The register was updated by the SENCO from class descriptions compiled by teachers in Term 1, and then re-evaluated and modified in Term 3.

### Programmes and provision

The school's first priority was to cater for gifted and talented students through mixed ability classes. Team leaders supervised the development of year level planning to ensure programmes were effective. Each classroom teacher planned and implemented differentiated programmes for mathematics, reading, and writing, with differentiation in science and social studies being trialled. Good quality teaching strategies supported gifted and talented students with the use of learning intentions, success criteria,<sup>19</sup> self evaluation, and individual goal setting (in consultation with parents and teachers). High quality resources supported learning and promoted thinking, questioning, and interactive learning using ICT. Teachers had positive relationships with students, and gifted and talented students said they felt included and valued.

There was effective coordination of provision for gifted and talented students, with out-of-class opportunities linking into regular classroom programmes. The school

18 See *Appendix Two: Glossary*.

19 See *Appendix Two: Glossary*.

offered a variety of withdrawal programmes, and used teachers and parents' special abilities and talents to do so. These included:

- leadership through the school council, school house captains, and sport teams;
- languages;
- reading and writing;
- mathematics;
- science and technology;
- performing arts – dance, drama, orchestra, choir, kapa haka;
- visual arts – art and painting;
- physical education and sport; and
- ICT.

Gifted and talented students also had access to a wide range of regional, national, and international competitions; a programme for information and hands-on technological experiences; university visits; mentoring opportunities; programmes to develop digital literacy and inventive thinking; and a programme aimed at developing cognitive, emotional and social needs of gifted and talented children.

The school celebrated academic, cultural, and sporting success, operating a Blues Awards system. These were awarded at a special assembly attended by parents and whānau.

#### **School self review**

The school leadership promoted an environment that was open and reflective, and encouraged younger teachers to contribute freely. Classroom teachers regularly reviewed their classroom programmes and team leaders supervised this. The senior management team provided models of reviews so teachers were able to evaluate differentiated classroom programmes and any withdrawal programmes for which they were responsible.

The school had open nights for parents and regular parent interviews to discuss and review provision for gifted and talented students. In 2004, a school-wide gifted and talented survey was undertaken, involving students, teachers and parents. Actions resulting from this included the consolidation of programmes on offer, and new programmes being offered.

#### **Student outcomes**

The inclusive culture of this school contributed substantially to gifted and talented students being highly valued and respected by the school community. The principal attributed this lack of tall poppy syndrome to mixed ability classes. He said there

was “no nerds’ class anymore and this used to be very apparent. Now the children are learning about life, how to deal with people, how to understand other people’s struggles.” Bullying management strategies also contributed to mixed ability classes. A student survey had shown that students felt they were being bullied and asked for better monitoring. Strategies were implemented and a subsequent survey showed students were happy, excited, and engaged.

The appointment of a school counsellor enhanced learning opportunities for gifted and talented students. She set up a mentoring system that supported them emotionally and spiritually as well as in other areas. She worked with teachers, families, and the wider community. The counsellor had good strategies to help students, particularly those who were very academically advanced, and worked with their families as well. Students appreciated there was a counsellor – “she lets you express your feelings.”

Gifted and talented students enjoyed school, saying they were allowed to make choices and decisions. They felt challenged and were given lots of leadership opportunities. Year 8 students acknowledged that their self-esteem had grown hugely between the start of Year 7 and the end of Year 8, and attributed this to being treated as young adults. The school was one of choice for many children and some travelled a long way to and from school each day, saying it was worth it. The students were engaged, focused and motivated, saying, “It’s okay to succeed at this school.”

One gifted boy with behavioural problems, who had been at a full primary school and now had to travel a long distance by bus each day, said that the school had changed him and he was much more mature.

### GATE IN CLUSTER CLASSROOMS

Palmerston North Normal Intermediate School is a decile 9 school in Palmerston North.

In 2007 the school’s roll was just over 660, of whom 64 percent were New Zealand European/Pākehā, 14 percent Māori, 12 percent Asian, and two percent Pacific, with the remaining eight percent from various other ethnicities.

The deputy principal was the appointed gifted and talented student programme coordinator and was supported by a group of nine cluster class and withdrawal programme teachers. The principal, senior management team, and board were very supportive of and knowledgeable about the provision for gifted and talented students.

There were six teaching teams of three to four classes. Many gifted and talented students were clustered in 12 composite classes at this school, spread across the teaching teams. The school provided a range of opportunities for enrichment and extension through both school and community programmes.

### School leadership

The coordinator of the gifted and talented education was very knowledgeable and skilled, and used her designated time effectively to develop GATE provision. The cluster teachers were also very knowledgeable and led many of the withdrawal and out-of-class programmes. In addition to this, the principal had a long history of developing gifted and talented programmes (both in this school and others), and encouraged teachers to be innovative and take risks in their teaching. These factors were critical to the development and success of the school's current provisions for gifted and talented students.

Six years ago, the school only had withdrawal classes, and gifted and talented students were spread across 21 mixed ability composite classes. There was only a small group of identified gifted and talented students who participated in future problem-solving extension classes. The senior management team, through self review, realised that this was not beneficial to gifted and talented students – identified and non-identified.

The board released selected teachers for two days and there was school-wide discussion about the options of mixed ability classes versus streamed classes. Teachers felt that, while gifted and talented students benefited from being together, streaming was not beneficial for students. Consultation with parents challenged this belief. A large group of students at the school were achieving academically in stanines 8 and 9.<sup>20</sup> The parents of these students' wanted one streamed class. However, teachers felt that this scenario would have made use of the strength of only one teacher rather than all the teachers, and that there would have been no provision for gifted and talented students who were not in this high ability class. Further consultation with parents and professional discussions amongst staff led to the development of clusters of academically gifted students in Years 7 and 8 composite classes.

The school then developed strong policies and core principles for gifted and talented provision. This was supported by a planning and implementation document, developed by the team leaders (of the six Years 7 and 8 teaching teams), the GATE coordinator, and the senior management team. This plan, informed by professional development and discussion, helped teachers to carry out the intent of the school's policy on gifted and talented provision.

<sup>20</sup> See Appendix Two: Glossary.

The board provided a budget for professional development, resources, programme development, and staff release time. Class teachers were released to run withdrawal programmes, to coach sports, or attend events.

The principal and deputy principal acknowledged that establishing a school-wide understanding of gifted and talented education was a constant challenge, particularly with a large staff. They approached this by involving as many teachers as possible and through school-wide professional development. The coordinator discussed planned provision for the year with teachers before the start of the school year. Teachers, particularly those new to the school, were encouraged to be involved in withdrawal programmes. There was school-wide professional development in differentiated learning, planning and assessment, and teaching strategies such as thinking, questioning, and problem solving. Teachers who took withdrawal programmes had professional readings about the definitions and identification of gifted and talented students. The coordinator attended gifted and talented network meetings, GATE conferences and seminars, and had undertaken university study specialising in the provision for gifted and talented students.

The school placed high priority on informing and educating parents about gifted and talented education. The coordinator gave parents a booklet with extensive information about GATE, held an open day and a parent information evening, sent regular newsletters home, and visited contributing schools to meet students and parents.

### Defining and identifying

The school's definition of gifted and talented education evolved from many years of staff research, professional learning, and discussions, particularly with Māori staff members. In addition to this, the senior management team consulted parents, including Māori parents and whānau, and local iwi to ensure the definition incorporated Māori concepts of giftedness and talent. The definition included the following domains:

- General intellectual.
- Specific academic.
- Creative and productive thinking.
- Leadership.
- Visual and performing arts.
- Sporting ability.

Teachers used a multi-methods approach to identify gifted and talented students on an ongoing basis, before and during students' enrolment at the school. These approaches included:



- a parent perspective form that asked for information about academic, sporting, the arts, key competencies, and preferred teaching style;
- interviews by the principal with prospective students;
- a placement form for teachers at contributing schools that identified gifts and talents, and included standardised test results;
- interviews by the deputy principal and SENCO with teachers from contributing schools;
- standardised and teacher-devised testing;
- teacher identification through observation; and
- student and peer nomination.

The principal and deputy principal said that they considered behaviour problems as an indicator of underachievement possibly masking gifts and talents. They also recognised that writing skills were a barrier for many academically gifted boys and emphasised the importance of a multi-methods approach to identifying these students.

The GATE team considered all these factors and summarised this information in their identification of gifted and talented students. The school's register of these students was well balanced in terms of ethnicity and gender, and across four categories of gifts and talents: academic, sports, performing arts, and young leaders.

### Programmes and provision

The school had a variety of programmes to cater for its gifted and talented students – in the regular classroom, in withdrawal programmes, and in the local community.

Students gifted in literacy and mathematics were clustered in groups of four to five students in cluster classes. These and other gifted and talented students were placed with teachers with particular strengths to ensure not only a match of knowledge and skills, but also to meet students' social and emotional needs.

In the regular classroom, teachers provided differentiated programmes and used teaching and learning strategies such as:

- inquiry and problem based learning to encourage thinking and questioning at a higher level;
- integrated learning;
- ability grouping for literacy and numeracy, and increasingly in science and social studies; and
- learning intentions, WALTs,<sup>21</sup> success criteria, and self evaluation.

21 See Appendix Two: Glossary.

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The school's withdrawal, out-of-class, and beyond school programmes were well planned and used the strengths not only of teachers, but also parents and community members. Teachers who ran these programmes met certain requirements for planning and reported to the board and class teachers about student progress. These programmes included:

- performing arts – drama, band, kapa haka, choir;
- visual arts – linked with secondary schools;
- te reo festivals;
- Ngā Tohunga;
- debating and speech making;
- international languages;
- sports, including extending top sportspeople to leadership through extension programmes, coaching of other students and running tournaments;
- leadership;
- science – linked with secondary schools; and
- a variety of regional and national competitions across the curriculum.

The school council research project was a particular initiative for gifted and talented students. The students were divided into three committees to research a particular topic:

- hygiene in the school toilets;
- the bike compound roofing; and
- the school heating system.

They then presented their cases to the board. This was a deliberate programme put in place to promote leadership and problem solving in real world scenarios.

Recently the school introduced an incentive programme where students were presented with Blues badges for academic, performing arts, sports and citizenship success. Students set academic, cultural and sporting goals based on this system. This was envisaged and promoted by the school council. The council ran a Blues Assembly six times a year, with a role model attending the assembly each time to talk to students.

**School self review**

Regular self review of the provision for gifted and talented students, included:

- an annual review and discussion based on observations of class teachers;
- standardised and school-wide test results;
- other assessment and product evaluations;
- student-completed programme evaluations;
- parent-student conferences;

- parent surveys; and
- reports to the board by teachers of withdrawal programmes.

This information, together with new intake data, was used when considering provision for the year. Outcomes from this self review were the introduction of new philosophy, creative thinking, and problem-based learning groups.

The school valued feedback, both formal and informal. The senior management team regularly undertook a parent and school community survey about their provision for gifted and talented students, and made modifications to programmes. A transition survey of Year 6 students and their parents was undertaken in Term 2 of each year. This survey identified any social and emotional well-being issues. These surveys, together with informal discussions between parents and staff, showed that parents felt their children were doing well at school, and also helped identify some areas for improvement for the school to focus on.

### Student outcomes

There were positive outcomes for gifted and talented students. The students said they enjoyed school, felt challenged, and that teachers encouraged them to take the next step in their learning and personal development. Students in cluster classes stated they felt safe in a supportive environment with others who were good at the same thing as them. Not only had the achievement levels of gifted and talented students increased, particularly those of boys, but the students were motivated, and were growing in their ability to apply knowledge. Cluster teachers said that there were social and emotional benefits as well. Gifted and talented students had grown in their tolerance and acceptance of others who were not at the same level as them. The Years 7 and 8 composite classes meant that the teacher got to know the students well over a two-year period and, particularly in Year 8, could build on students' strengths. Year 8 students developed leadership and mentoring abilities, modelling for, and supporting, their Year 7 classmates.

Successes were celebrated at the school through performance assemblies, newsletters, awards, and individual feedback from the principal and teachers. Performance assemblies gave parents opportunities to see the level at which students were achieving, as did progress meetings between the deputy principal, parents, and students.

The school worked hard to make sure that these positive outcomes continued for gifted and talented students, organising special visits to secondary schools and to specific departments in the school. The principal and deputy principal met with Year 9 deans, GATE coordinators, SENCOs, and Resource Teachers: Learning and Behaviour (RTLBs) about learning, social and emotional needs, and achievement outcomes.

### GATE DRAWING ON SPECIAL CHARACTER

St Mary's College is a decile 5, state-integrated Years 7 to 15, girls' secondary school in Auckland.

In 2007 the school's roll was just under 770, of whom 54 percent were New Zealand European/Pākehā, 16 percent Pacific, 10 percent Māori, and nine percent Asian, with the remaining 11 percent from various other ethnicities.

The principal and members of the Diverse Needs Team had oversight of gifted and talented education in the school. In addition to a Gifted and Talented coordinator (who was also the Learning Support coordinator), the team was made up of the principal, deputy principal, the RTLB, the Specialist Classroom teacher, the counsellor, and the Future Problem Solving<sup>22</sup> teacher.

This school catered for its gifted and talented students in a variety of ways. Years 7 and 8 students were placed in mixed ability classes, and from Year 9 gifted and talented students were grouped together as a form class. Gifted and talented students had many opportunities, both in and beyond the school.

#### School leadership

The appointment of a new principal in 2002 provided an impetus for the GATE programme. The principal made key appointments, and established a school-wide professional development programme, to support new GATE initiatives. A newly appointed head of department (HoD) for mathematics developed a critical and creative thinking programme based on Habits of Mind<sup>23</sup> across the curriculum. School-wide professional development focused on this programme and on improving student achievement. Following on from this, a gifted and talented coordinator, supported by the deputy principal, was appointed to create a specific gifted and talented team within the Diverse Needs Team. This team used a highly professional and coordinated approach to lead the development of GATE in the school. The influence of this group was substantial. The principal's support and the deputy principal's membership on the team meant that practical changes could be quickly implemented.

The gifted and talented team made good use of external expertise to review and develop ways to provide for gifted and talented students. This external input prompted an analysis of what was already in place, what was working well, what the gaps were, and how the school might proceed. Forward planning was developed and implemented.

School-wide professional development was integrated into the curriculum with excellent support from the senior management team. This professional development included an emphasis on:

22 See *Appendix Two: Glossary*.

23 See *Appendix Two: Glossary*.

- thinking skills;
- inquiry-based learning (through an Extending High Standards Across Schools contract);<sup>24</sup>
- differentiated learning – this was originally school-wide and then provided to smaller cross-curricular groups to develop questioning skills, cooperative teaching, positive learning environments, and the sharing of good practice;
- catering for gifted and talented in the classroom;
- future problem solving; and
- specific topics for different curriculum groups such as Scholarship English, Netball NZ workshops, Music Teachers' Symposium.

In addition to the school-wide focus, the gifted and talented team had more specifically focused professional development with an external advisor.

The principal had a depth of knowledge about the gifted and talented programmes in the school and the strategies to address the goals of the gifted and talented long-term plan. She focused on building the capacity of classroom teachers to provide differentiated teaching so that all gifted and talented students were provided for in their regular classrooms. There was an expectation that differentiation was shown in class programme planning. The principal and the senior management team made good use of the expertise of classroom teachers and the RTLB to develop out-of-class programmes. For example, the physical education teacher had a flair for values teaching; the HoD of science developed a chemistry extension programme. There was strong support for teachers to cater for students with contradictory strengths and weaknesses, such as students who were gifted but disorganised, or gifted and dyslexic.

The school's special character and values of "respect for self and others" were an integral and tangible part of the rich learning environment for gifted and talented students. Appropriate resources, accompanied by nurturing pastoral care, exemplified the school's provision for gifted and talented students.

### Defining and identifying

The school's definition and identification of gifted and talented students evolved from the principal's vision, expertise in the school and ongoing external advice. The senior management team demonstrated a strong commitment to identifying potential gifted and talented students, particularly those who did not readily display their giftedness. This process involved a strong commitment to listening to parents, through meetings, hui, and fono with parents to explore what was valued as gifted and talented in Māori and Pacific cultures. The school adopted an holistic and a multi-cultural view that incorporated spiritual, emotional, social, physical and intellectual capabilities across different domains. These included:

24 See Appendix Two: Glossary.

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- academic;
- bodily-kinaesthetic;
- visual-spatial;
- musical ability;
- creative and thinking skills;
- leadership ability; and
- spirituality and ethics.

The school's identification process was multi-categorical, covered transition points in the school (particularly at Years 7 and 9), and drew on many sources of information. These included:

- use of standardised data from contributing schools;
- testing of musical ability;
- the use of MYAT<sup>25</sup> to identify gifts in literacy, numeracy, and non-verbal domains;<sup>26</sup>
- specialist psychological testing;
- parents – the gifted and talented team developed and piloted a Parent and Caregivers form that reflected the school's definition of the different domains: critical thinking, language, emotional/spiritual, cultural, creativity, physical, musical, and organisational; and
- teachers – forms were completed by each faculty to identify students with characteristics of critical thinking, creative intelligence, and emotional intelligence.<sup>27</sup>

The gifted and talented team placed importance on developing a partnership with parents and valuing their insights into their children's abilities. The principal talked of one student in particular, whose gifts were masked by specific disabilities. This student, subsequently identified as Gifted with a Learning Disability (GLD), was limited by dyspraxia and dyslexia. The parents said, on entry to the school, that their child was gifted and this was confirmed with a psychologist report. The student was identified as intellectually gifted with excellent verbal comprehension and oral language abilities, as well as outstanding abilities in mathematical reasoning and numerical operations.

The school's thorough approach to identifying gifted and talented students enabled classroom teachers to be well informed and well prepared to teach these students. Classroom teachers had access to a comprehensive register that tracked the progress of gifted and talented students throughout the school. Teacher professional development in differentiated classroom teaching practices enabled teachers to "cater well for everyone in the classroom, so the gifted and talented emerged". (GATE)

### Programmes and provision

The board was committed to improving programmes for gifted and talented students, particularly through curriculum resources and teacher development. In addition to this,

25 See *Appendix Two: Glossary*.

26 The use of a non-verbal domain enabled English as Second Language (ESL) students to show potential and/or capability of logical thought. ESL students were also encouraged to express their talents in their home language.

27 See *Appendix Two: Glossary*.

there was continued analysis of each gifted and talented cohort's strengths and in-depth questioning about what else could be done to cater for them. Faculty meeting agendas always included provision for gifted and talented students to ensure that students' needs were being met and new programmes being developed if necessary.

Gifted and talented students had a variety of programmes, both in and beyond the regular classroom. Regular classroom programmes included:

- differentiated learning personalised to students' needs;
- cross-grouping in Years 7 and 8 for mathematics;
- the promotion of deeper thinking through the use of Thinking Maps, Habits of Mind, and de Bono's Thinking Hats;<sup>28</sup> and
- a compulsory music programme for Years 7 to 9 students to develop independence and interdependence (there were significant staffing and timetabling allocations for this programme).

Some gifted and talented students were accelerated if this was socially appropriate. This was always done in consultation with parents. Extension and enrichment were considered better options for those students who were not socially mature.

Gifted and talented students had a wide range of out-of-class activities to meet their needs:

- future problem solving for Years 7 to 10 (timetabled to occur during the school day);
- critical thinking clubs for Years 7 to 13;
- performing and visual arts, particularly music;
- fashion design;
- sport, including leadership (with external experts);
- an entrepreneur group;
- spiritual – liturgical dance, and leadership;
- a model United Nations Assembly;
- science with a university research centre; and
- mathematics and literary competitions, including debating and speech.

### School self review

A strong culture of self review ensured a focus on continuous improvement and refinement of provision for gifted and talented students, particularly through curriculum development. A small team of experts, both internal and external to the school, adopted an approach of “create, seek feedback, refine, and produce” when developing, reviewing and refining gifted and talented policies, procedures and programmes. This review process involved teachers, parents and students. Recent changes arising from the school's self review included new programmes, new ways of identifying students, and the development of a register of gifted and talented students and their gifts.

28 See Appendix Two: Glossary.

### Student outcomes

The senior management team and teachers recognised that the social and emotional wellbeing of gifted and talented students were important factors in achieving positive outcomes for gifted and talented students. The teachers acknowledged that the development of the 'whole' person was critical, and they worked hard to personalise provision. Positive teacher-student relationships were integral to this. Gifted and talented students talked about respect being both ways. Respect for self and for others was meaningful and tangible for these students. Pastoral care was highly effective, with excellent communication, monitoring, and proactive interventions to ensure student wellbeing.

Gifted and talented students said they were happy and valued. They appreciated being in an environment that included challenge, teamwork, and creativity. Teachers shared their passions with the students, and helped them to achieve. Students had developed strong friendships in their class – “we have no enemies in the class” – and said it was the right environment to stay on task. They acknowledged that being gifted and talented was hard work – some other students thought that “everything was easy for them, but it wasn't.” Teachers had high expectations of the students.

Gifted and talented students were given opportunities to share their gifts and talents with other students, their parents and in the local community. For example, a group of Years 9 and 10 students organised a technology day for Years 7 and 8 students. The objective was to help the younger students think creatively about technology items such as a boat made from recycled objects, to carry a sponge across a pool, or a costume suitable for wearing on Mars.

There was an ethos of celebrating top achievers at assemblies, during morning teas for students and parents, and at church services. This helped to develop the pride and wellbeing of the students and was a way of sharing the positive outcomes with the wider school community. The school had a culture of exploring and developing new ways of communicating and collaborating with parents, and informing them about the school's provision for gifted and talented students.

### GATE AS AN ALTERNATIVE PROGRAMME

Rutherford College is a decile 5, Years 9 to 15, coeducational secondary school in Waitakere.

In 2007 the school's roll was 1240, of whom 47 percent were New Zealand European/Pākehā, 19 percent Māori, 13 percent Asian or Indian, and 11 percent Pacific, with the remaining 10 percent from a range of other ethnicities.

The board of trustees, principal, and senior management team were committed to gifted and talented education, and there was a full-time HoD role funded for coordinating the



provision for gifted and talented students. An assistant coordinator, an administrator, and a small team of teachers who took responsibility for gifted and talented programmes complemented the HoD role.

The school operated two programmes for gifted and talented students; a school-funded programme for Years 9 and 10 students, and a Ministry of Education funded TDI for Years 11 to 13 students.

### School leadership

The gifted and talented coordinator was passionate and committed. She was well supported, through budgeted resources, time, and space, to develop comprehensive programmes for gifted and talented students. The coordinator was highly skilled and experienced, and had been the head of learning support at the school. She felt that there was a lack of curriculum integration and pastoral care for gifted and talented students in secondary schools, and had developed programmes for gifted and talented students that started with listening to what individual students had to say, and identifying what each one needed.

This approach to gifted and talented provision saw the initial development of an integrated programme for Years 9 and 10 students at the school, which was funded from the school budget, and given teaching resources and facilities. The Year 9 and 10 programme was followed by the establishment of a pathway for senior gifted and talented students. The school was part of a cluster using ICT to meet the needs of gifted and talented students and from this they applied for TDI funding. This application was successful and the school secured funding for this project for the 2006–2008 period.

Initially, there was some resistance amongst teaching staff who felt that gifted and talented students were being favoured unfairly. However, the two programmes have since been embedded in school culture and practice, and there was a school-wide understanding of gifted and talented education. This understanding was an holistic one that recognised and celebrated gifts and talents in academic, creative, sporting, cultural, technological, leadership, and social arenas.

A school-wide professional development programme was operated to build staff capacity. Monthly meetings focused on concepts of giftedness, characteristics of gifted and talented students, identification of gifted and talented, effective strategies to meet the needs of gifted and talented, and a framework for planning and delivering thinking skills. HoDs and the teachers who delivered the Years 9 and 10 GATE programme had participated in professional development on the SOLO taxonomy, learning to improve their delivery methods and developing higher level thinking skills amongst gifted and talented and other able students. Specialist gifted and talented staff had various professional development opportunities, including gifted and talented workshops and conferences.

The school actively included parents in all processes and advocacy for students. It established a programme of parents' evenings – approximately two each term. The programme was to inform parents, and included a presentation from an educational psychologist about gifted and talented students. The school was particularly proactive in empowering Māori parents to advocate for their children and to empower other members of Māori whānau. Part of this process involved Māori parents in providing professional development to teachers and the senior management team.

### Defining and identifying

The school leaders had a comprehensive definition and identification process for gifted and talented students – one that was multi-categorical and multi-cultural, and recognised demonstrated and potential gifts and talents. Students themselves were able to identify that they were gifted in interpersonal skills or their knowledge of their own culture, for example. The multiple categories included in the definition were:

- critical and creative thinking;
- emotional intelligence;
- physical and sporting ability;
- cultural traditions;
- values and ethics;
- visual and/or performing arts;
- technological aptitude; and
- academic and intellectual abilities.

The gifted and talented team worked hard to incorporate the core values of Māori and Pacific cultures into the behaviour and characteristics encapsulated in their definition and identification process. These core values were:

- Māori concepts:<sup>29</sup>
  - manaakitanga;
  - whanaungatanga;
  - kaitiakitanga;
  - wairuatanga;
  - rangatiratanga;
  - mātauranga;
  - te mahi rahi; and
  - tikanga.
- Pacific concepts:
  - possession of knowledge (acknowledged by others);
  - social status (within a group);<sup>30</sup>
  - knowledge that is worthwhile to society;

29 See *Appendix Two: Glossary*.

30 This concept is about gifted and talented students being respected and revered by their peers for their gifts and talents (for example, leadership, spiritual influence, interpersonal skills). In turn there is an expectation that they will use their gifts and talents for the benefit of others. Personal communication with Ingrid Frengley-Vaipuna, May 2008.

- ability to pass on knowledge; and
- spiritual/mystical elements that give power and influence.<sup>31</sup>

The gifted and talented team consulted Asian parents and families to develop a framework based on the concepts and values important to their cultures.

An holistic process of identification involved student self and peer referral, teacher referral, parental input, and professional assessment for underachieving gifted and talented students with behavioural issues. The school used asTTle to pre-test and identify students coming into the school at Year 9, and the Purdue Academic Rating Scales<sup>32</sup> to identify gifts and talents in various subjects, and those gifted and talented students who were underachieving. A Māori profile test was developed and implemented through consultation with the Māori community, and an initiative to develop a similar tool for Pacific students was developed in 2007, for implementation in 2008.

Once identified as gifted and talented, the student, with his or her parents met with the coordinator to identify the student's specific needs and to develop a personalised programme. Personal views were highly valued in these interviews. The student spoke first – uninterrupted, and then the parents spoke. The coordinator, students and parents participated in identifying the student's strengths and weaknesses in six areas – academic, social, emotional, physical, creative, and spiritual. A picture of the student was developed, including their passions, values, concerns, avoidance, and anxiety. Strengths were built on, and weaknesses acknowledged and addressed.

### Programmes and provision

The school provided two main programmes for gifted and talented students. These programmes were strongly individualised and used identified strengths that could mitigate weaknesses and develop the student into a well-rounded person. The nature of the programmes helped students to feel part of a peer group. Gifted and talented students were also catered for in mainstream programmes. Classes were banded in core subjects to provide differentiated learning programmes, with teaching and learning strategies and assessment tasks tailored for each group of classes.

Gifted and talented Years 9 and 10 students were given an integrated thematic programme tailored to individual student needs. Two classes operated at each year level as an alternative to the mainstream timetable, and incorporated double teaching periods and integrated studies. This programme had been running at the school for six years, and was developed from a primary school model. The programme started with an interdisciplinary team from across each curriculum area. Common skills, knowledge, and concepts were taught through the different curriculum areas.

Gifted and talented students in Years 11 to 13 had individualised programmes as part of the school's TDI. Their programmes operated independently of mainstream classroom

31 Concepts taken from a workshop taken by Leslieli MacIntyre and Ingrid Frengley-Vaipuna at the Rising Tides National Gifted and Talented Conference held in Wellington, 2006. Available at [http://www.tki.org.nz/r/gifted/special\\_topics/culture\\_e.php](http://www.tki.org.nz/r/gifted/special_topics/culture_e.php).

32 See *Appendix Two: Glossary*.

programmes and were implemented by a combination of specialist classroom teachers and outside providers. Programmes were designed to make the most of the flexibility of NCEA (some students took four or five subjects, gaining the necessary credits in those subjects), included correspondence courses, and extra-curricular sport and cultural activities to develop interpersonal and social skills.

The TDI was designed to be an holistic programme that offered an integrated curriculum and pastoral care. Multi-level classrooms, along with after-school peer tutoring run by students, gave the students opportunities to watch and learn from others. This tuakana-teina approach helped develop whānaungatanga and to give students a say in their own learning.<sup>33</sup>

#### School self review

Self review at this school was ongoing and comprehensive. The curriculum committee and the coordinator reviewed the effectiveness of programme content each term. New ideas were constantly explored to extend and challenge the students and teachers. Self review included insightful teacher and student evaluation and consultation with parents about outcomes and the development of strategies for improvement. Parents and students were taught the skills to participate fully in these evaluations.

The Years 9 and 10 programme was reviewed after each integrated theme, looking at content, delivery, and achievement. The curriculum committee received interim and half-yearly reports and subsequently developed goals for each teaching department. The TDI was subject to milestone reports from a researcher appointed by the Ministry of Education, who regularly interviewed individual students. The information was fed back to the coordinator who acted on suggestions made by students. These reviews highlighted the need to develop the programmes further for underachievers and Pacific students. The TDI reviews also highlighted the need to strategise for post-TDI funding.

#### Student outcomes

Student well-being was paramount and pastoral care was of a high quality. The coordinator helped students develop the skills to ensure their own well-being. Students could think critically about their gifts and talents, and communicate their needs. They could identify and reflect on their strengths and weaknesses, and acknowledge both their personal improvement and the positive outcomes for them from participating in the programmes.

There was strong support for the students to push their boundaries and pursue ideas and passions. Past students returned as mentors, students acted as peer tutors, and the coordinator organised key people in the community to help with outside-school pursuits. Years 11 to 13 gifted and talented students were placed in one vertical form group, which they said helped establish a sense of belonging and friendship. Years 9 and 10 gifted and talented students joined them for one form period a week for this purpose as well.

33 See Appendix Two: Glossary.

One Year 12 Asian student was identified by language teachers as having a gift for languages, and in five years had learnt two new languages, as well as winning four school prizes in the sciences and mathematics. This student said that in Year 9 he was in the lowest streamed class and the other students lacked motivation. He acknowledged that the TDI had boosted his confidence and “destroyed my limits about myself” – that he had surpassed his own expectations. In a supportive environment he had identified his strengths and weaknesses and learned to work cooperatively.

The coordinator emphasised the importance of whānaungatanga in the TDI programme. There was a strong emphasis on supporting each other. A camp early in the year helped establish personal relationships – both at school and as a social peer group.

For one Year 11 student, the main focus was self-improvement. At intermediate he had trouble socialising and, although doing well academically, was always in fights. He was placed in the gifted and talented programme in Year 9, but did not know any of the other students and had trouble socialising. Subsequently he was placed in mainstream classes until Year 11 when he was placed in the TDI. Initially he was wary, but he worked on his social skills and said that the group had “developed a shared understanding of accepting people for who they were.” He acknowledged that the whānaungatanga of the group fostered talking about self development.

The school acknowledged and celebrated students' achievements. The school leaders, staff, and the wider community valued their gifts and talents, and the students were encouraged to use these gifts to benefit others, for example, through mentoring, performance, and leadership.

A Year 12 Māori student played an invaluable role in empowering Māori parents. He did not join the TDI until Year 12, but in Year 11 was the top performing Māori student. During Year 12 he developed a proposal for raising Māori student achievement and was a Youth Parliament representative. He encouraged Māori parents to help develop a model of Māori concepts of giftedness and talent, and created an affirmative action model to improve Māori student achievement in the school. The school adopted the model, with implementation planned for the following year.

### GATE IN A MULTI-CULTURAL SETTING

Kelston Girls' College is a decile 4, Years 9 to 15, girls' secondary school in Waitakere.

In 2007 the school's roll was just under 970, of whom 48 percent were Pacific, 17 percent Māori, 13 percent Asian or Indian, and 11 percent New Zealand European/Pākehā. The remaining 11 percent were from various other ethnicities.

The principal and senior management team approved and oversaw the coordination and implementation of gifted and talented education. The school had a Teacher in Charge of Gifted and Talented (coordinator) who was also a classroom teacher. The coordinator liaised with the At Risk Committee during monthly meetings, as well as with HoDs and teachers of gifted and talented students.

This school had specific programmes for gifted and talented students. High Motivation form classes (HMC) operated for Years 9 and 10 academically gifted students, as did a Pacific nations motivated (HMC Pacific) class for Year 10 Pacific students, and a High Performing Sports (HPS) group. All gifted and talented students were able to participate in many extension and enrichment programmes, as well as community-based programmes.

#### School leadership

The principal has had a long-term commitment to promoting high achievement amongst gifted and talented students. She appointed an able and enthusiastic coordinator whom she supports through ongoing professional development and funding. The principal established sustainable funding provision through existing budgets, including a vertical form structure, specialist staff, targeted professional development, and resources, as well as establishing a specific gifted and talented budget. In addition to this, a component of each faculty's budget was tagged for resources for students at risk of not achieving, which included gifted and talented students. This has meant there had been resilience to staff changes and a firm public commitment of school leadership to gifted and talented provision.

Gifted and talented professional development was prioritised and ongoing. In 2005, all staff participated in professional development on gifted and talented education. The development of an accepted school-wide definition, and the reworking of existing policy documents by the gifted and talented and SENCOs and the senior management team, followed this. In 2006, all staff again participated in professional development about lateral thinking and problem-solving skills, and recognising and catering for the needs of gifted and talented students. The gifted and talented coordinator undertook further professional development, including courses with an educational consultant.

The enthusiasm and energy of the coordinator influenced the provision for gifted and talented students. She recognised that there were no limits to what the students might achieve, and endeavoured to make sure that knowledgeable form teachers were responsible for the students' pastoral care.

The school engaged with the wider community about its provision for gifted and talented students. Parents and whānau took part in hui and fono, and in particular, the school consulted regularly with a local cluster of schools about gifted and talented education. This cluster of 17 primary and intermediate schools had TDI funding<sup>34</sup> from the Ministry of Education. Together the schools represented students from more than 50 different cultural communities. The programme provided professional development for teachers, and mentoring for gifted and talented students with social, emotional, or behavioural difficulties.

### Defining and identifying

The school developed a multi-dimensional and multi-cultural definition that reflected the multi-cultural mix of students. The school's definition included demonstrated or potential gifts and talents in one or more aspects of social, cultural, emotional, academic, sporting, and leadership domains. Teachers looked for independent learning skills and specific interests, rather than the top academic students. The definition also recognised gifted and talented students as having special needs and characteristics that required differentiated learning programmes, and emotional and social support, to realise their potential.

The school's identification process was ongoing and used a range of methods. Students were identified not just on entry at Year 9 but throughout their time at the school. Teachers were aware of hidden potential that might emerge during later years, with many students being identified by subject teachers as talent developed through exposure to opportunities, particularly underachieving students. Similarly, teachers were proactive in identifying Māori, Pacific, and ESL gifted and talented students using concepts developed through consultation with the wider community.

Gifted and talented students were identified mostly through a combination of:

- referrals from contributing intermediate schools;
- interviews with students and parents;
- standardised testing including asTTle reading, writing, and mathematics; and
- referrals from deans and subject teachers, particularly physical education and arts teachers.

34 See Appendix Two: Glossary.

### Programmes and provision

Programmes and provision acknowledged the special needs of gifted and talented students and there was a wide range of programmes and structures that ensured those needs were met.

Many academically gifted and talented students in Years 9 and 10 were placed in one of two HMC classes at each year level. There was strong emphasis on integration. In 2007, science, social studies and visual arts were integrated, and English was to be integrated in 2008. Each term Years 9 and 10 HMC students participated in integrated topic-based extension days facilitated by specialist subject teachers. Teachers provided different experiences beyond the usual classroom experiences, such as educational outings, fieldwork, and experts coming into the class. For example, a DNA exploration day at a medical research institute based at the local university gave students a chance to use proper science equipment to undertake DNA tests.

The teachers gave HMC students challenges related to higher order thinking and questioning so they would develop the confidence to use their gifts and talents in various learning situations. This was also promoted through the use of thinking boxes – a set of problem solving scenarios and curriculum-based work. These were introduced in 2007 during HMC form classes. Subject teachers provided extension work that used differentiated learning techniques. HMC form teachers were trained to deliver this extension work. Students enjoyed the challenge of the thinking boxes, which consisted of stories with a problem to solve.

HMC teachers adapted their subject programme in consultation with the HoD. They covered the same programme as the rest of the year level, but at a more advanced level using different texts and resources. Year 10 HMC students were learning at a Year 11 level, and then in Year 11 the students were streamed to continue working at a higher level in a differentiated learning programme. Teachers made good use of formative and summative assessment information to ensure students were progressing at an appropriate rate, and to acknowledge mastery and eliminate repetition.

The school was extending the HMC concept into Year 11, not necessarily as a learning group, but as a whānau group, recognising the personal relationships that underpin the concept. Students could continue to be supportive of each other. The coordinator saw this as critical in keeping academically gifted students motivated. She thought of the form class as a way of creating a safe environment for a special needs group, where they could flourish through active participation and insightful questioning.

Although open to all students, many gifted and talented students also participated in programmes such as Enterprising Schools (business studies, accounting, organisational skills), the Enviro Club (science, horticulture, environmental), the school radio station,



and the Art Festival. These programmes gave gifted and talented students life skills so they could communicate and interact with all people, growing their social and emotional wellbeing, as well as their academic progress.

Gifted and talented students also participated in out-of-school activities and competitions, such as story writing, art competitions, and in particular CREST, a TDI initiative to give students authentic experience in science and technology. These students worked over the summer school holidays with a scientist from a tertiary provider as a mentor.

The school's HMC Pacific, operating at Year 10, catered for motivated Pacific students studying Samoan language. The school planned to extend this format to a similar class (Auhia) for motivated Māori students studying te reo Māori. Both these classes were to be included in the local TDI cluster's development of gifts and talents in culture, dance and sports.

Students gifted in sports joined the HPS group. Teachers identified Years 9 and 10 students in Term 2 of each year, and Years 11 to 13 students in Term 1. These gifted and talented students participated in training run by the physical education department and outside experts, both at and out of school. Training and coaching local primary and intermediate students developed Years 9 and 10 students' leadership skills. At Years 11 to 13, students focused on gaining achievement standards for NCEA.

#### School self review

The school had an established, ongoing system of self review that included the evaluation of provision for gifted and talented students. This system included not only student achievement information, but also student, parent, and teacher contributions. Students reflected on their programmes through discussions with teachers and written evaluations. They commented on their personal motivation and achievement, and also about what they would like to learn about, and positive and negative aspects of the programmes. The coordinator endeavoured to adapt the programmes to meet the students' needs. Parents commented on new initiatives, the programmes, and their child's wellbeing.

At the time of this evaluation, teachers were reviewing the effectiveness of initiatives for the Years 9 and 10 HMC. This involved teacher evaluation, as well as feedback from students and parents. Recent reviews had identified the need for:

- greater coordination of learning experiences for the HMC between departments, and inclusion of more subjects;
- the extension of Thinking Boxes to the HMC senior level, focusing on emotional problems;

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- mentoring of students in specific learning areas by experts from tertiary or research institutions; and
- the further development of identification of gifted and talented underachieving students.

### Student outcomes

Gifted and talented students said that their teachers had high expectations of them, that they were challenged and not bored at school. The school celebrated their achievements in assemblies, on the school website, through creative and cultural performances, and at leadership, sporting, and academic events. Achievements were shared with parents and whānau – a group of Year 9 HMC students said, “our parents are proud of us.” A recent survey showed that HMC students felt good about themselves and were above the survey’s national average for accepting praise.<sup>35</sup>

A social worker and the school’s careers advisor worked closely with the students. Although some students had difficult home circumstances, were in Child, Youth, and Family Services care, or on medication, these students had blossomed through the focus on their emotional wellbeing. Some students who were placed in the HMC had been underachieving and unsettled at school, but had learnt to set goals, and motivate and take responsibility for themselves.

A high-risk student, expelled from a previous school, was identified as gifted and talented and placed in the HMC. With the support of the social worker and the form teacher, and positive role models in the class, she settled and remained at school.

The school’s acknowledgement of a wide range of gifts and talents across the spectrum of academic, creative, sporting, and leadership spectrum helped students to discover and develop hidden talents. A student gifted in science and mathematics, discovered her talent in art and design through the broad experiences she had in HMC. She combined these gifts and talents and received a scholarship to undertake tertiary study in fashion design. The principal described her and other similar students as “happier because of the broadening and discovery of hidden talents.”

35 The Student Attitudes Information System survey asks students in Years 7 to 10 about wider educational issues that may affect student progress. These issues included school life, school lessons, bullying and places where students feel unsafe, and peer attitudes.

## Summary

This report provides examples from seven schools that were personalising learning and engaging gifted and talented students with high quality programmes.

Each school featured in these case studies had developed programmes for its gifted and talented students that met the students' needs and interests. These schools shared some common characteristics that contributed to the effectiveness of the programmes they offered. Each school:

- had a dedicated and knowledgeable gifted and talented coordinator or team that was supported by a committed principal, board, and senior management team;
- had high quality policies and procedures for teachers to implement, with the teachers supported by resources, time, space, and professional development;
- had a definition and identification processes that were multi-cultural, multi-categorical, and recognised gifted and talented students with learning disabilities and behavioural problems, and those who were underachieving;
- met the needs of gifted and talented students in the regular classroom, providing differentiated teaching and learning, and then through school and community-based programmes using teacher and community expertise and resources;
- had both formal and informal processes for self review that involved all members of the school community;
- had a strong pastoral care network, where teachers understood the social and emotional needs of gifted and talented students;
- supported and encouraged gifted and talented students with their gifts and talents, so these students enjoyed school, felt challenged, and had their gifts and talents valued; and
- had good and open communication with parents and the community about its provision for gifted and talented students.

There are many challenges for schools in providing high quality provision for gifted and talented students. The schools included in this report have all developed their provision over time to ensure that the outcomes for the gifted and talented children at their school are positive. They have also actively sought to involve teachers, students, parents, whānau, and the wider school community in that journey.

## Appendix One: Self-review questions and indicators for your school

Q1. How well does our school leadership support the achievement of gifted and talented students?

### Indicators

- 1.1 The provision of gifted and talented education is embedded in our school culture and practice.
- 1.2 We have a school-wide shared understanding about gifted and talented education.
- 1.3 We have regular communication, consultation, and collaboration amongst all members of our school community, including staff, parents, whānau, students, and the wider community.
- 1.4 Our school has good quality policies, procedures or plans for gifted and talented education.
- 1.5 Our school has leadership for the provision of gifted and talented education e.g. principal, designated coordinator/team.
- 1.6 Our school is building capability through a planned approach to school-wide and ongoing professional development and performance management.
- 1.7 Our gifted and talented education is well resourced through informed decision-making about staffing, funding, and programmes.

Q2. How inclusive and appropriate are our school's processes for defining and identifying giftedness and talent?

### Indicators

2.1 Our school's definition of giftedness and talent:

- 2.1a Reflects the context and values of our school community.
- 2.1b Is multi-categorical.
- 2.1c Incorporates Māori concepts.
- 2.1d Incorporates multi-cultural concepts.
- 2.1e Is grounded in sound research and theories

2.2 Our school's identification process:

- 2.2a Is multi-categorical.
- 2.2b Includes Māori theories and knowledge.
- 2.2c Includes multi-culturally appropriate methods.
- 2.2d Includes both informal and formal identification.
- 2.2e Includes triangulation.
- 2.2f Is early and timely.
- 2.2g Is ongoing, covers transition points and ensures continuity.
- 2.2h Includes potential and actual/demonstrated performance.

2.3 Our students that we have identified reflect the diversity of the school population.

2.4 Our policies and procedures have been developed in consultation with our wider school community as appropriate.

2.5 We have regular communication, consultation and collaboration amongst all members of our school community.

## Q3. How effective is our school's provision for gifted and talented students?

**Indicators**

3.1 We have school-wide coordination of our programmes and provision.

3.2 Our programmes and provision have been developed in consultation with our wider school community as appropriate.

3.3 Our programmes and provision are provided across the curriculum as appropriate.

3.4 Our programmes and provision are provided across all areas of giftedness and talent as appropriate.

3.5 Our regular classroom programmes are differentiated for content, process, and product.<sup>36</sup>

3.6 Our beyond the regular classroom programmes are planned, monitored, evaluated, and reported.

3.7 Our off-site programmes are planned, monitored, evaluated, and reported.

3.8 Our beyond the regular classroom and offsite programmes are linked back to our regular classroom programmes.

3.9 We have a range of assessment information that demonstrates the achievement and progress of our gifted and talented students.

3.10 Our programmes are inclusive of Māori values, tikanga, and pedagogy.

3.11 Our provision of gifted and talented education is school-wide.

## Q4. How well does our school review the effectiveness of our provision for gifted and talented students?

**Indicators**

4.1 We have a systematic and ongoing process for evaluating the outcomes for our students.

4.2 Our school shares and consults about evaluation findings with staff, parents/whānau, students, and our community.

4.3 Our school acts on recommendations arising from our evaluation.

4.4 We evaluate the impact of our programmes and provisions, both internal and external, to our school.

36 See pp36–37 of the Ministry of Education *Gifted and Talented Students, Meeting Their Needs in New Zealand Schools* for an explanation of these concepts.

Q5. To what extent do our gifted and talented programmes promote positive outcomes for our gifted and talented students?

**Indicators**

5.1 Our gifted and talented students enjoy school.

5.2 Our gifted and talented students receive regular feedback on their achievement and progress.

5.3 Our gifted and talented students are well supported to achieve.

5.4 Our gifted and talented students' social and emotional well-being is nurtured through pastoral care.

5.5 Our gifted and talented students are provided with opportunities and choice to use their gifts and talents to benefit our other students and our wider community.

5.6 Our gifted and talented students feel their gifts and talents are valued.

5.7 We have focused communication between our school, parents and whānau that supports our gifted and talented students' holistic well-being (cultural, spiritual, emotional, and social).

5.8 Parents of our gifted and talented students are informed by, and consult with, teachers about their child's achievement and progress.

## Appendix Two: Glossary

<b>Acceleration</b>	Involving curriculum activities at challenging levels.
<b>asTTle</b>	Assessment Tools for Teaching and Learning (asTTle) gives teachers good information about their students' achievement and progress in reading, writing and mathematics. The tool is specially designed for New Zealand students from Year 4 to Year 12, including those learning in Māori-medium.
<b>Australasian Schools Competitions</b>	Now called the International Competitions and Assessments for Schools, these competitions are run by Educational Assessment Australia, operated by the University of New South Wales. They have assessment in the following subject areas: science, spelling, writing, mathematics, computer skills, and English.
<b>CREST</b>	CREST is a national awards system administered by the Royal Society of New Zealand designed to encourage student projects in science and technology. Undertaking a CREST project gives students authentic experience in scientific investigation or technological practice of their own choice, working with a consultant from industry.
<b>de Bono's Thinking Hats</b>	Edward de Bono's six Thinking Hats represent different thinking strategies – factual, emotional, critical, positive, creative, process.
<b>Emotional intelligence</b>	A non-cognitive skill of understanding and managing other people. Howard Gardner's Multiple Intelligences includes both interpersonal intelligence (capacity to understand the intentions, motivations, and desires of other people) and intrapersonal intelligence (the capacity to understand oneself, to appreciate one's feelings, fears, and motivations).
<b>Enrichment</b>	Providing additional activities to broaden understanding.



<b>Extending High Standards Across Schools</b>	<p>Extending High Standards Across Schools (EHSAS) is designed to raise student achievement by promoting excellence among New Zealand's schools. Funding is made available to successful schools to improve student outcomes by developing and extending their proven practice in collaboration with other schools in a self-selected cluster. The emphasis is on developing professional networks and improving the evidence-base around what works to improve student outcomes.</p> <p>The principles behind EHSAS are to raise student achievement by promoting excellence in the school system and supporting high standards. EHSAS projects can run for up to four years and schools can only be involved in one EHSAS project at a time.</p>
<b>Future Problem Solving</b>	<p>Future Problem Solving is a year-long programme where students, working in teams, learn and apply a six-step problem solving process that provides them with the tools to tackle problems that they will meet throughout their life. Throughout the year, students apply the process to consider the challenges and issues contained in complex social and scientific problems to be faced in the future or tackle existing problems in their own communities. The programme encourages students to carry out in-depth research, to think creatively and critically, to apply ethical thinking skills and to work as part of a team.</p>
<b>Gifted Education Advisory Support</b>	<p>The Ministry of Education provides additional funding in the School Support Services Contract for the delivery of gifted education advisory support to schools.</p>
<b>GLOSS</b>	<p>Global Strategy Stage test determines which global strategy a student uses. This test is part of the Numeracy Project development.</p>
<b>Habits of Mind</b>	<p>The 16 Habits of Mind identified by Costa and Kallick are a composite of many skills, attitudes and proclivities including: value, inclination, sensitivity, capability, and commitment.</p>

<b>Inquiry learning</b>	Inquiry-based learning is a constructivist approach, in which students have ownership of their learning. It starts with exploration and questioning and leads to investigation into a worthy question, issue, problem or idea. It involves asking questions, gathering and analysing information, generating solutions, making decisions, justifying conclusions and taking action. Inquiry-based learning approaches can help develop higher-order, information literacy and critical thinking skills. They can also develop problem-solving abilities and develop skills for lifelong learning.
<b>Kaitiakitanga</b>	Guardianship of knowledge, environment, and resources.
<b>Learner centred, self-paced, integrated approach</b>	This approach to learning incorporates the following pedagogies: <ul style="list-style-type: none"> <li>• a differentiated classroom programme designed to meet the needs of individual students rather than a one size fits all approach;</li> <li>• learning where students set the pace, meaning that gifted and talented students are able to focus more in depth on a particular aspect of their topic; and</li> <li>• a programme that includes content from a range of learning areas, encouraging students to see the connection between learning areas.</li> </ul>
<b>Learning intentions</b>	Making learning explicit to students by using language they understand to explain what they are learning.
<b>Manaakitanga</b>	Hospitality, kindness, generosity.
<b>Matauranga</b>	Education, knowledge, wisdom, understanding, skill.
<b>Multi-categorical</b>	Gifted and talented students represent students with many different special abilities. Some may be gifted and talented in science or mathematics, others in visual arts or literacy, and others in leadership. Gifted and talented does not only include students with high intelligence.
<b>MYAT</b>	The Middle Years Ability Test (MYAT) is a test of general ability designed to assist teachers in their assessment of students aged 10 to 15 years. As well as verbal and numerical reasoning items in the tradition of the Australian Council of Educational Research Intermediate Tests, MYAT includes non-verbal (or abstract) reasoning items, giving a more complete picture of students' general ability.

<b>NumPA</b>	Numeracy Project Assessment is a diagnostic assessment tool that gives teachers information about number knowledge and strategies. There is a version of NumPA (Te Poutama Tau) for students in Māori immersion classes.
<b>PATs</b>	Progressive Achievement Tests are standardised tests developed by the New Zealand Council for Educational Research (NZCER). There are PATs for Year 4 to Year 10 students in reading comprehension, reading vocabulary and mathematics. There is a listening comprehension PAT for Year 3 to Year 10 students.
<b>Purdue Academic Rating Scales</b>	The Purdue Academic Rating Scales were developed to give secondary teachers an opportunity to evaluate students specifically as learners in English, foreign languages, science, mathematics, and social studies. Teachers often comment that general rating scales for identifying the gifted contain items that the teachers had no opportunity to observe. These scales are derived directly from teachers' classroom experience with superior students. Teachers can also use the Purdue underachieving gifted profile.
<b>Questioning skills</b>	Skills to help students to develop better questioning by understanding the features of an effective question and the skills of an effective questioner. Rather than ask close questions, students learn to ask relevant, open questions based on what, who, when, why, where, which, and how.
<b>Rangatiratanga</b>	Self-determination, self-management, leadership inspiring unity.
<b>School Entry Assessment</b>	SEA is a standardised assessment procedure that can be used to collect information on the skills, knowledge and understanding of new entrants. The teacher usually tests children about four to eight weeks after they have started school.
<b>Scaffolding</b>	A teaching strategy where the teacher supports the student in their development and provides support structures to achieve the next step in their learning. The goal of scaffolding is for the student to become an independent learner and problem solver.
<b>Six Year Net or Six Year Observation Survey</b>	The six-year observation survey is a comprehensive assessment of each six-year-old child's progress in reading and writing. The six-year net helps teachers to find students who have reading difficulties early.

<b>SOLO Taxonomy</b>	The SOLO taxonomy stands for Structure of Observed Learning Outcomes. Developed by Biggs and Collis, it describes levels of increasing complexity in a student's understanding of a subject. The five stages are pre-structural, uni-structural, multi-structural, relational, and extended abstract.
<b>Stanines</b>	A stanine indicates a student's rank in comparison with other students who took the same test. Stanines are expressed as a scale of nine units with a low of one and a high of nine. The scale follows a bell-curve, where 20 percent of the students fit in stanine five, four percent in stanine nine, and four percent in stanine one.
<b>STAR</b>	Supplementary Test of Achievement in Reading. The New Zealand Council for Educational Research (NZCER) developed STAR. It identifies students who need extra help in reading. Teachers also use the information to group students for reading.
<b>Success criteria</b>	Making learning explicit to students by providing them with criteria to measure their success.
<b>Talent Development Initiative</b>	The Talent Development Initiatives Funding Pool is available through the Ministry of Education as part of the New Zealand Government's gifted education policy. The purpose of the funding pool is to support: <ul style="list-style-type: none"> <li>• the development of innovative approaches in gifted education that result in improved outcomes for gifted and talented students;</li> <li>• research into the impact innovative approaches have on learning and teaching; and</li> <li>• the sharing of knowledge, understanding, and models of effective practice with others in the education sector.</li> </ul>
<b>Teacher Observation Scales</b>	Used to identify children with special abilities in five characteristics domains: learning, social leadership, creative thinking, self-determination, and motivational.
<b>Te mahi rahi</b>	Physical and artistic performance.
<b>Thinking Maps</b>	David Hyerle has created eight thinking maps geared toward triggering certain types of thinking. Each of the eight Thinking Maps is based on a fundamental cognitive skill such as comparing and contrasting, sequencing, classifying, and cause-effect reasoning.

<b>Thinking skills</b>	Giving students the skills to be creative, critical and metacognitive thinkers so they can make sense of information, experiences, and ideas. These skills help them to develop understanding, solve problems, make decisions, shape actions, and construct knowledge. Examples of thinking skills programmes include: de Bono's Thinking Hats, Thinking Maps, Bloom's Taxonomy, Philosophy for Children (P4C), Future Problem Solving, and Thinker's Keys.
<b>Tikanga</b>	Procedure, custom, protocol that reinforce beliefs and values.
<b>Tuakana-teina</b>	<p>Tuakana/teina refers to the relationship between an older (tuakana) person and a younger (teina) person and is specific to teaching and learning in the Māori context. Within teaching and learning contexts, this can take a variety of forms:</p> <ul style="list-style-type: none"> <li>• Peer to peer – teina teaches teina, tuakana teaches tuakana.</li> <li>• Younger to older – the teina has some skills in an area that the tuakana does not and is able to teach the tuakana.</li> <li>• Older to younger – the tuakana has the knowledge and content to pass on to the teina.</li> <li>• Able to less able – the learner may not be as able in an area, and someone more skilled can teach what is required.</li> </ul> <p>See <a href="http://www.tki.org.nz/r/hpe/exploring_te_ao_kori/planning/methods_e.php">http://www.tki.org.nz/r/hpe/exploring_te_ao_kori/planning/methods_e.php</a></p>
<b>Wairuatanga</b>	Spirituality.
<b>WALTs</b>	WALTs (We Are Learning To...) are expected or intended learning outcomes for students.
<b>Whanaungatanga</b>	Kinship, connecting as one people, family values and relationships.



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