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CONFERENCE PROCEEDINGS
Part 1

PAPERS WERE REVIEWED BY:

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Presenters were invited to submit papers for the conference proceedings. Each paper received was reviewed by one of the editors and a review panel member, focusing on the importance, presentation and reporting within New Zealand's educational and cultural context. Based on reviewer feedback, presenters revised their papers for the final publication. The views expressed within each paper are those of the presenters, and not of the editors, review panel, conference organisers, or Ministry of Education.

TE TĀHUHU O TE MĀTAURANGA
Ministry of Education

"A rising tide lifts all ships"
JOSEPH RENZULLI

NURTURING GIFTED AND TALENTED CHILDREN: A PARENT-TEACHER PARTNERSHIP

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ABSTRACT

This paper outlines a wide range of strategies parents and teachers can use to nurture gifted children including the provision of: a nurturing environment, positive attitudes towards giftedness and learning; time, attention and patience; learning opportunities, experiences and resources; and assistance with the development of beneficial skills, habits and attitudes. In addition, educational approaches such as differentiation, enrichment/extension programmes, acceleration, dual enrolment, one day a week programme, buddy systems, mentorship and different grouping strategies are discussed. The importance of good home-school/centre partnerships is emphasised and messages from teachers and parents about how positive relationships can be fostered are given. Finally, some useful resources are listed in the Appendix.

INTRODUCTION

One of the recommendations of the Ministerial Working Party on Gifted Education was the development of a book to help parents meet the needs of their gifted and talented children and to assist them in forming positive partnerships with schools and teachers. Consequently, hundreds of parents were consulted via advisory and focus group meetings, individual interviews and an online questionnaire. They were asked about what was needed in a parent book and also to share their own experiences of raising gifted children. Jill Bevan-Brown and Shirley Taylor were contracted by the Ministry of Education to write this book. A summary of some material from the parent publication is contained in this paper. [1]

HOW CAN PARENTS NURTURE THEIR CHILDREN'S GIFTS AND TALENTS?

(A) By Providing Basic Requirements such as a Nurturing Environment, Positive Parental Attitudes Towards Giftedness and Learning, Time, Attention and Patience

Similar to all children, gifted children's first needs are for love, support, nourishment, shelter and security. In a nurturing, responsive environment they will feel valued and empowered to reveal and develop their gifts and talents.
Parents play a vital role in their child's acceptance of their ability and their motivation to develop it. Making time to spend with their children; sharing, encouraging and supporting their interests; and simply enjoying their company are all very important. Similarly, if parents model an enjoyment of regular reading, an enthusiasm for problem solving and an excitement for learning, these habits and attitudes are affirmed for their children. However, no matter how well intentioned parents are, the everyday demands on their time and finances, and certain behaviors typical of gifted children (e.g. those incessant questions!) can at times make parenting these children a challenging occupation. Careful time management, patience and a good sense of humour are all essential. These latter two qualities are illustrated in one parent's story:

> *On a wet and chilly holiday day we decided to take the boys and dogs for some exercise in a nearby pine forest. The stated purpose was to collect pinecones for next winter's fire (a goal helps both boys focus). We arrived in the dripping forest with raincoats, gumboots and bags and set off to look for pinecones. As we walked we found a number of different toadstools. As we began to collect our cones (Mum, Dad and younger son working hard) my seven year old returned to the car for pencil and paper and conducted a detailed survey of toadstools using tally charts, counting carefully each toadstool and marking the different varieties. He was supplied with a bag and directed towards cones at intervals, to no avail. His imagination was fixed firmly on toadstools and could not be shifted.*

(B) By Providing Learning Opportunities, Experiences and Resources

Gifted children require a variety of experiences, opportunities and resources to challenge them to discover, create and develop their advanced abilities. These can include:

1. *Community resources, facilities, programmes and events* such as holiday programmes at the local library, musical and dramatic performances, cultural activities and so forth.

2. *Clubs, associations and tuition***.**
Many sports, culture and interest clubs provide activities and experiences that can challenge and extend gifted children in their area/s of strength. Additionally, organisations such as The New Zealand Association for Gifted Children (NZAGC) and MENSA provide a wide variety of activities and resources specifically developed for gifted children. Parents can find out what these organisations offer by consulting their web sites (www.giftedchildren.org.nz and www.mensa.org.nz). Experts agree that gifted children should have opportunities to work and play together. Activities offered by these organisations provide such opportunities. Parents can nurture any friendships formed in these groups by providing additional occasions for children to meet.

3. *Educational offerings.*
Some schools offer out-of-school enrichment classes, tuition, trips and holiday programmes for gifted children. These may be run in conjunction with universities or community organisations.

[1] Permission has been granted from the Ministry of Education to include material from the parents' book in this paper.

4. People

Providing gifted children with opportunities to meet and talk to people with a range of expertise and experience can alert them to many different occupational possibilities and challenges for future consideration. Interestingly, studies of successful gifted adults show that many have been profoundly influenced by particular people from their childhood who provided inspiration, motivation, encouragement and expertise. Consequently, parents can be on the look out for potential mentors for their gifted children. Mentoring may be an informal arrangement where a relative, teacher or friend provides on-going guidance and motivation within the context of a special friendship, or it may be a more formal arrangement involving scheduled meetings, goal-setting, skills training and so forth. Parents can also consider on-line mentors and virtual role models. Information on on-line mentoring can be found on http://permanent.access.gpo.gov/lps9890/lps9890/www.nwrel.org/mentoring/ementoring.html or www.e-pals.com. For virtual mentoring, children can research someone they admire to find out how they managed to get to the top of their field and what qualities they needed to succeed. Reading books about gifted people who have triumphed against great odds can also be inspirational.

5. Books; toys; music, art and sporting equipment; puzzles; and games

Toy libraries, second hand book stalls, garage sales, markets, school galas, 'for sale' newspaper columns and various trading web sites make the provision of a stimulating, book-rich home environment achievable. Regular reading to children, family visits to the library and games where gifted children are challenged by older siblings and adults are all recommended as is encouraging children to create their own games to teach to others.

6.Technology

With computers and internet access becoming cheaper and more readily available, a whole world of discovery, extension and creativity is opening up to gifted children. The internet is a wonderful source of information for personal interest and research projects. Search engines such as www.yahoo.com and www.google.com can locate information on almost anything. However, it is advisable that parents monitor their children's internet use to ensure that the material they are accessing is safe and appropriate. Some internet sites for gifted children and their parents are provided in the Appendix.

There are also some excellent computer programmes available that enable children to conduct simulated science experiments, design graphic masterpieces and play chess against a robotic expert. New and challenging programmes are coming on the market everyday but as these are often expensive parents are recommended to do their homework before buying anything. They can talk to teachers and computer shop personnel who are familiar with educational software, consult computer catalogues, read 'un-sponsored' internet reviews, see what programmes are recommended on gifted websites, ask other parents of gifted children what their children enjoy and, where possible, borrow 'on approval' programmes to trial prior to purchasing them. A similar approach is advisable when purchasing tapes, videos, CDs and DVDs (which are often available on loan from local libraries and toy libraries).

TV programmes, particularly nature and history documentaries, can be both stimulating and informative. Children who are gifted in the physical domain may benefit from watching TV coverage of world-class sporting events. Not only can they observe winning techniques but the motivational value of these events is also very powerful.

(C) By Assisting the Development of Beneficial Skills, Habits and Attitudes

Gifted children need a variety of different skills, habits and attitudes in order to make the most of their learning opportunities. Parents can help their children by:

1. Encouraging creativity, divergent thinking and high level thinking skills

Dalton (1986) maintains that the eight basic skills involved in fostering creativity are: fluency, flexibility, originality, elaboration, curiosity, complexity, risk-taking and imagination. Parents can foster these creative skills by asking open-ended, challenging questions and through the various games, activities and every day happenings their children are involved in. The following four scenarios illustrate this point.

Scenario One

A teenage girl wants to sleep over at her friend's house but her parents are not keen on the idea. They ask her to convince them by 'brainstorming' all the reasons she should be allowed to sleep over (Fluency). They then ask her to come up with as many reasons as possible why they might be against the idea (Flexibility).

Scenario Two

A seven-year old boy is challenged to come up with an invention or system that will help him/his parents speed up his/their household chores (Originality and Elaboration).

Scenario Three

An eleven-year old girl has just started at Intermediate School and objects strongly to wearing a school uniform. Her parents suggest that she prepares a case for abolishing uniforms to present to her teacher (Risk-taking). The case should outline all the consequences of retaining and abolishing uniforms (Complexity).

Scenario Four

Laying on the ground with a young child, the parent asks what the various cloud shapes remind him/her of (Imagination), what s/he thinks the clouds are made of and why s/he thinks there are different types of clouds (Curiosity).

Parents can also use one or more of the various creative/divergent thinking models and strategies that have been developed. Particularly recommended are SCAMPER (Dalton, 1986), Six Thinking Hats (de Bono, 1990) and Bloom's Taxonomy (see Pohl, 2000 for this taxonomy and a range of other useful thinking strategies).

2. Facilitating learning and teaching study skills

It is often assumed that gifted children have well-developed learning and study skills such as knowing how to: use the library efficiently; take succinct study notes; listen effectively; organise their time efficiently; use a thesaurus; construct effective questions; structure a well-written report; debate well; observe carefully; critically evaluate their own work and that of others; and present research information in a variety of appropriate forms.

Some people believe that because gifted children appear so competent they will 'pick up' these skills incidentally. This is not necessarily the case and so they need to be taught missing skills in order to further develop their gifts and talents. Generally this teaching occurs at school but it can be complemented by parents at home in a variety of informal and formal ways. For example: establishing a regular homework routine; encouraging children to develop a 'working plan' in their various activities; modelling responsive listening; praising good organisational skills; and showing children how to locate library books or information on the internet. Parents are advised to teach learning and study skills as their child's interests dictate or as needs arise. One parent provided a good example. On a family picnic she told her son not to drink from the stream because the water was polluted. Her child challenged this and a full scale study on water pollution evolved. This included both her and her son learning how to test water samples for their type and degree of pollution. The mother said that to her amazement and embarrassment the stream water scored better than the sample taken from their kitchen tap!

Children learn best by being actively involved in investigating topics that have relevance and interest to them. Problem-based discovery learning is particularly effective especially if the problem is that children have encountered in their daily lives: What better motivation is there to discover a solution when the problem is neighbourhood complaints about your drum practice or how to give the whole family Christmas presents when you only have $2 in your piggy bank! A suggestion is for parents to watch how their children go about solving the problems they encounter. If they take a 'hit and miss' approach, Parnes Creative Problem-Solving Process (CPS) is recommended. (See http://www.eddept.wa.edu. au/gifttal/provision/provparn.htm).

1. *Attending to personal qualities, feelings, values and attitudes*

Many gifted children are more sensitive than their peers to the opinions, attitudes, emotions and values of others. They often have an intense interest in social, moral and philosophical issues and a deep understanding of their own feelings. In addition, some children's specific gifts and talents are in the affective domain.

Parents can use a variety of means to support, encourage and assist their children in affective areas. Every-day opportunities to foster affective development could include: the discussion of controversial news items; resolution of sibling and peer conflicts; examination of moral issues in TV programmes; critical evaluation of video and computer games; and affective analysis of children's books and movies. In addition, there are many books containing activities such as moral dilemmas, values clarification exercises, role plays, socio dramas, mock trials, games and simulation exercises which can be used to help children explore social issues, develop decision-making, deal with human relationship problems, develop spiritual sensitivity and more effectively manage their thoughts, feelings and behaviour.

Parents can also encourage and support their children to research the life and values of people who have made significant contributions to society, (e.g. Mother Theresa of Calcutta, Nelson Mandela and Dame Whina Cooper); investigate social justice issues and take action to improve the situation, (e.g. writing to the local Council to request that unsafe playing areas be repaired and upgraded); and use their gifts and talents in the service of others, (e.g. a musically talented child might perform in a retirement home, a gifted teenage tennis player could help at junior coaching sessions and a talented artist could become involved in creating a public mural).

Finally Parents can use models such as Krathwohl's 'Taxonomy of the Affective Domain' to guide their interactions with their children. (See Pohl, M., 2000 for a good example).

2. *Developing language and communication skills*

Many gifted children have advanced verbal ability and a great love of language. This can be supported and extended by parents providing a language-rich environment in the home. Open questions, responsive listening and a genuine interest in their child's concerns and activities are the ingredients necessary to create an environment that encourages conversation and discussion. In addition to this parents can provide opportunities for their children to explore different forms and functions of language. For example, puppets, masks and dressing up are means by which young children can experiment with their voices, extend their vocabulary, trial different speaking styles and use language for a variety of purposes.

Parents can capitalize on school-age children's fascination with different languages by challenging them to discover what hello and good bye is in as many different languages as possible; write the shopping list in braille; tell a story or joke in sign language; or find the meaning and origin of family names. Such activities may spark an interest in learning another language.

Similarly, parents can help their children to explore the richness of language by introducing them to figures of speech such as similes and metaphors and to plays and poetry. The sharing of stories which occurs when parents read to their young children can be continued when they are older in the form of book discussions that model critical reading and deepen their children's understanding and appreciation of literature.

Parents can also encourage their children to participate regularly in both creative and factual writing. Giving them a special book, a diary/journal, fancy letter writing paper or calligraphy materials may be all that is needed to get their creative juices flowing. Providing an audience and looking for opportunities for children to share their writing beyond the family are also recommended. This could include entering song writing, poetry and short story competitions, writing letters to the editor or sending articles to journals and magazines. One

mother told of how her daughter's writing was given a boost when she won a Mother's Day competition which required her to explain why her mother deserved to be Queen for the Day. With the prize including a full beauty treatment for the mother, the writing activity could be described as mutually beneficial!

The Appendix lists many websites that contain enriching activities for gifted children. However one resource that is especially recommended is: http://www.eddept.wa.edu.au/gifttal/provision/provacti.htm This website contains English, maths, science, society and environment and cross curriculum activities using Bloom's and Krathwohl's taxonomies, deductive and inductive reasoning, SCAMPER, CPS, creative thinking and divergent questioning.

Before concluding this section on how parents can nurture their children's gifts and talents, a caveat must be sounded about overdoing things. Rosenfeld, Wise and Coles, authors of *The overscheduled child: Avoiding the hyper-parenting trap* warn parents against providing their children with so many activities that they do not have any 'down time' to reflect, ponder and day dream. It may be that in these quiet moments the seeds of a brilliant story, creative artwork, original waiata or scientific discovery begin to germinate or they may just need 'blob out' time to recharge their batteries.

HOW CAN TEACHERS NURTURE THEIR STUDENTS' GIFTS AND TALENTS?

Like parents, teachers must also provide a nurturing environment; positive attitudes towards giftedness and learning; time, attention and patience; learning opportunities, experiences and resources; and they must assist their students develop beneficial skills, habits and attitudes. Teachers, however, achieve these goals in an educational context. They can use many of the same strategies parents draw on but, in addition, have a range of education-based approaches and programmes at their disposal.

One important strategy teachers use is 'differentiation.' This involves targeting learning experiences to suit the particular needs and abilities of individual students and may include differentiation of: (a) content - what is taught and learnt - ideas, concepts, skills, information; (b) processes - the way in which content is presented and learned; (c) products - what is produced to demonstrate learning and (d) environment – physical structure of a setting, its organisation and its social and emotional climate. For example, teachers may provide differentiated units of work for their class. After assessing students' prior knowledge of a particular topic, gifted students are allowed to omit or spend less time on the basics and use the time saved to do independent work involving accelerated or more complex content. Many learning activities for all children are beneficial for gifted children e.g. higher level thinking skills or programmes, inquiry learning, science fairs, technology challenges, electives and clubs. Sometimes there is differentiation within these activities, for example, a gifted child may undertake a more in-depth investigation within a science fair project.

In addition to in-class differentiation, gifted students may also be provided for in enrichment or extension programmes. These involve a group of gifted students meeting once a week or for a block of days to work with a teacher or outside expert on a particular subject or topic. Enrichment/extension may incorporate special programmes such as Future Problem Solving or Philosophy for Children and CREST (Creativity in Science & Technology).

Teachers may use a variety of different grouping arrangements to provide for gifted students, for example: streaming, clustering a group of gifted children together in a class for the year, cross age grouping and grouping with like-ability age peers for certain subjects. Teachers may also use buddy systems and mentorship strategies. A buddy can be an older student or email buddy while a mentor is someone from the community, a parent, retired person or another teacher who is able to work with the gifted student on a shared area of interest.

Other strategies at a teacher's disposal are dual or concurrent enrolment. This is when a student is enrolled for something specific at another level of education, e.g. a secondary student doing a tertiary course. Secondary school students (in the top 5%) may be dual enrolled with the Correspondence School to study an extra subject. Similarly, primary school students (in the top 5% of their age group) can also be dual enrolled with the Correspondence School at the request of the school principal. This could be for enrichment, advanced level study in a particular subject or to take an extra subject.

Two further means of providing for gifted students are grade acceleration and one day a week programmes. The former involves moving a student a class or more ahead of their age peers. In New Zealand schools this is most likely to occur in the junior primary school or at secondary level where it is sometimes in specific subject areas. It is rare for children to enter school before age five due to the 1989 Education Act which states that no person under five shall be enrolled at a primary school. One day a week programmes involve children from a variety of schools coming together one day each week to classes run by private providers. In some areas, clusters of schools or big schools also provide one day a week programmes for gifted children.

The previous discussion has, in the main, focused on gifted school-age children. Because early childhood education is less structured than school and allows children greater mobility and choice of activities, differentiation is somewhat easier to achieve at this level. In terms of content, process, product and environment, a wide range of strategies can be used. For example, the provision of: more advanced books for gifted children to browse through or for teachers to read to them; advanced equipment such as a globe, atlas or microscope; more time to study a topic in-depth; opportunities to conduct science experiments, create and perform a puppet show, lead songs or dictate and share stories; mentors; Marae visits – the list is seemingly endless! Teachers can respond to the ideas of individuals or small groups and build activities from these. Mat time can be run for small groups. In addition, the opportunity for mixed age grouping in early childhood centres enables gifted toddlers to play more complex games and engage in more challenging activities with older children.

FOSTERING COLLABORATIVE HOME-SCHOOL/CENTRE PARTNERSHIPS

Parents and teachers both want their gifted children/students to be happy and make the most of their advanced ability. They are on the same team working towards the same goals. Good home-school/centre partnerships are essential. In fact research by Biddulph, Biddulph

and Biddulph (2003) confirmed that children's achievement can be significantly enhanced when the partnerships between home and centre or school are genuinely collaborative and there is a climate of equality with recognition of parents' specialist knowledge and understanding of their own children.

Unfortunately, however, home-school/centre relationships don't always run smoothly. Often this is due to a lack of understanding of each partners' perspective which leads to a breakdown in communication. Parents and teachers consulted for the Ministry of Education's parent publication provided some important messages for each other: Messages to help each party in the home-school/centre partnership gain a greater understanding of the others' perspective and to assist in the development of a collaborative team approach.

Messages from Teachers to Parents

Teachers emphasised that providing for a class/centre which contained children with a wide variety of needs and abilities was not an easy task. Parents needed to be realistic in their expectations of teachers and to remember that they were only human! Teachers also noted that a child's giftedness might be obvious in the home environment, but that was not necessarily the case at school - some children deliberately hid their ability. Some advice from teachers about approaching schools and centres is summarized on the following chart.

DO empathise with pressures on the teacher. Offer to collaborate – suggest: "could We meet soon and have a conversation about J's progress?" Also offer to help e.g. Trips, resources, cultural expertise.

DON'T catch teachers on the run or when they are busy with the children.

DO be assertive but non threatening and respectful in your approach.

DON'T be aggressive, hostile or confrontational.

DO be tactful. Focus on the child's needs e.g. for more challenge. Bring along examples/evidence of the work your child is doing at home to back up your concerns.

DON'T focus on the failings of the teacher or generalise when talking to him/her – "She is **always** bored"; "You **never** provide him with interesting work"; "You **never** do any science."

DO apologise if you went over the top last time. Offer to start again.

DON'T think all is lost or give up after one try

Messages from Parents to Teachers:

The parents consulted for the Ministry of Education publication had many messages they wished to share with teachers. They wanted teachers to know that they had no pretence about 'knowing it all.' In fact they emphasized that bringing up gifted children was often a very difficult task and that they were really appreciative of support they had received from teachers in the past. Like all parents, they wanted happy, fulfilled children who were treated well by their teachers. Some messages from parents around these themes are included below.

We don't think we know it all!
"Please don't treat us as though we are looking to blame someone else for less than wonderful school work - we want to improve it and need teachers to guide this in the classroom. We will back you up at home and we should work as a team. Rebutting the advances we tentatively make to school just knocks back our self-confidence and makes us feel foolish! Every time, we have to pick ourselves up and get together the courage to try again in a few months."

We do appreciate you!
"It has been really great having teachers who recognise gifted children and work in their school to provide programmes and work with you, the whānau, for the child's learning progress."
"Don't think you have to know everything or have all the answers."

We want happy fulfilled kids, not rocket scientists!
"We want the child's happiness and enthusiasm as the main focus."
"My child used to be animated and inventive, she's now dumbing down, conforming, quieter since being at school. She's happier in holidays."

Bringing up a gifted child isn't easy!
"It is very hard work – mental and emotional resources are constantly challenged. I long for more support … Understand their intensities. Some children can be consumed by a perceived injustice e.g. whole class being kept in because some talked, and be angry about it for hours or days. Sometimes for the sanity of our family, I have to protest with my son too."

We're not pushy parents!
"Many teachers need to learn that the myth that all parents are pushy and think their child is gifted is just that- a myth. The majority of parents who think their child is gifted are correct."
"Please don't buy in to cultural stereotypes. Asian parents are not all pushy parents who place pressure on their children to achieve."
"I think my child is gifted and would like to talk to his teacher about giving him more challenging work but I am afraid they will think I am whakahīhī (skiting)."

Our children don't need to be "brought down a peg or two!"
"Gifted children can be your best friend or your worst nightmare and the difference is how you engage and extend them."
"These are children first and foremost and are desperate for your acceptance and approval. Show you like them."
"They don't have to act gifted all the time."

CONCLUSION

Parents and teachers can do a great deal to nurture and develop gifted children's advanced abilities and support their emotional wellbeing. While this can, at times, be a challenging, frustrating and exhausting task it is also a very rewarding one which is best achieved within the context of a collaborative and respectful home-school/centre partnership.

Ko koe ki tënä, ko ahau ki tënei kïwai o te kete
You at that and I at this handle of the basket.

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De Bono, E. (1990). *Six thinking hats*. London:Penguin.

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APPENDIX

Resources for Parents and Teachers

McAlpine, D., & Moltzen, R. (Eds.). (2004). *Gifted and talented. New Zealand perspectives* (2nd ed.). Palmerston North: Kanuka Grove Press.

Porter, L. (2005). *Gifted young children. A guide for teachers and parents* (2nd ed.). Crows Nest, Australia:Allen & Unwin.

Strip, C. (2000). *Helping gifted children soar. A practical guide for parents and teachers.* Scottsdale, AZ: Great Potential Press.

Tall Poppies NZAGC's Magazine for gifted children, their families and professionals

www.giftedchildren.org.nz/national/tallpoppies.php

http://www.austega.com/gifted/ - Australian site for parents and teachers. Links, articles, activities for preschool children and older children.

www.hoagiesgifted.org/parents.htm - Just about everything you need to know. You may want to start with Gifted 101 (www.hoagiesgifted_101.htm).

http://gtworld.org/gttest.htm - Online family support communities, FAQ about testing, articles, reading lists for children and parents, links to other sites.

www.giftedevelopment.com - Information on identification, assessment, counselling and visual spatial learners.

http://parents.renzullilearning.com/main.aspx - A child's interests and learning styles are matched with challenging downloadable learning opportunities from databases e.g. virtual field trips, creativity activities, competitions, books, projects.

http://www.SENGifted.org - Articles on social emotional issues (some specifically for parents), counselling and psychological issues, adult giftedness.

http://www.tki.org.nz/e/community/gifted - NZ gifted education site, has information specifically for parents, a parents' forum and links to many gifted resources.

Websites for children

www.hoagiesgifted.org/young_kids.htm - Lots of activities for **young children.**

www.hoagiesgifted.org/hoagies_kids.htm -Activities for **school aged children**.

http://globe.org.nz - Part of the international GLOBE network of students, teachers and scientists working together to study and understand the **global environment**.

www.globalnet.org.nz - Aimed at 10-16 year olds. Social action projects, mentors, epals. Ideas for **investigations on global issues**.

http://www.dosomething.org - Resources and support to a nationwide network of young people who are taking **action to improve their communities**

http://www.omvirtuallythere.co.nz/home.asp - Allows visitors to view objects from the **Otago Museum** electronically.

http://www.exploratorium.edu - A **virtual museum** experience at this museum of science, art and human perception.

http://www.mos.org/sln.Leonardo - Biography of **Leonardo da Vinci**, activities, photos, information, techniques to explore e.g. perspective.

www.nga.gov/kids/zone - **Artists Online** Children of all ages can design a virtual mobile, create a painting, collage or sculpture. Links to US National Art Gallery's collection to show how artists create these same effects

www.hoagiesgifted.org/reading_lists.htm - **Books** suitable for gifted children.

www.nswagtc.org.au/info/books/books.html - **Books** suitable for gifted children.

http://uneli.unitec.ac.nz/experts/home.php - **Ask an Expert** for students – arts, science, languages, computing etc.

www.ajkids.com **Ask Jeeves - Kids** Ask question about where to find information on a wide range of subjects, answers to questions about games etc.

www.hunkinsexperiments.com - Presented in cartoon format. **Experiments** for primary age children – science, sound, maths, using materials etc.

http://faculty.washington.edu/chudler/neurok.html - **Neuroscience for Kids** Learn about the brain and nervous system. Includes information, experiments, resources, links, games, questions and answers, students' work.

http://publish.uwo.ca/~cagis/ - Canadian association for **Girls in Science**. Colourful site aimed at ages 7-16. Yes magazine on line, virtual membership available and many links.

www.kidspsych.org - **Kidspsych** The theme of understanding ourselves and each other. Games for young children. Colourful site.

www.funbrain.com - Download and play **games** offline. Maths, reading, vocabulary games for young to older children, differing levels of difficulty.

http://memory.loc.gov/ammem/ndlpedu/features/science/flash.html - Inventing minds. This website looks at some ingenious **inventions in history**. It includes a game for children to identify inventions from historic photos.

http://kidswriting.miningco.com/ - For budding **writers** up to 15 years.

http://mathworld.wolfram.com/ Comprehensive - **Maths** website useful for secondary school students.

http://giftedkidz.org/ - Gifted Kidz New Zealand allows for **children's contributions**

www.bubbledome.co.nz - **Bubbledome** for 5-13 year olds invites children to read a story and submit their ideas as to how problems could be solved.

Website safety for children

www.netsafe.org.nz - The website for the Internet Safety Group of New Zealand (Information for parents and children).

www.cyberkidz.co.nz - Safety points and safe links for children compiled by the team at Netguide Magazine.

THE MIXED ABILITY CLASSROOM, INQUIRY LEARNING AND THE GIFTED STUDENT

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ABSTRACT

New Zealand differs in the education of its gifted students to most other countries as these students are, in the main, catered for within a mixed ability classroom (Riley, 2003). Inquiry learning as a methodology for delivering the curriculum is becoming very popular, particularly in primary schools. This paper will draw on literature from the field to define what teachers know about inquiry, what inquiry is, and what it is not, and how it can successfully cater for the differentiated learning needs of the gifted student in a mixed ability classroom.

INTRODUCTION

In my capacity as an adviser to schools, long-term anecdotal evidence from schools' needs analysis and adviser observation show that many schools are grappling with different models of inquiry with varied amounts of 'student learning' taking place. Until teachers have a thorough understanding of the inquiry process, what it is and why they are using this approach to effect learning for all students, they will not be able to differentiate the learning necessary for gifted students.

Many of the inquiry models being used by schools, are derivative of 'information literacy' or 'action learning' which focus on finding information for a teacher-directed study, using and recording the information, then presenting and evaluating findings. While some valuable information retrieval skills may be learnt in such a process, models such as these are not authentic to students, do not take students' interests into consideration, do not always build on students' prior knowledge, often re-teach what students already know, and are not moving students' thinking beyond remembering and comprehending (personal observation, 2005).

Gawith (2005) suggests that educationalists and researchers alike are totally confused by what inquiry is and why it is important for students' learning. It is my concern for how inquiry learning is undertaken in many primary schools and my knowledge of what a powerful learning tool it can be, for all students as well as the gifted, which has led to the undertaking of my research. It is hoped that the following discussion of the literature, as an entry into my study on "How gifted students access the curriculum through an inquiry process" will help teachers begin to understand what makes an effective inquiry and how it can be differentiated for gifted learners.

As a frame of reference for this paper my criteria for what makes an effective inquiry will be drawn from a synthesis of the literature. This will include:

- the role of the teacher
- acknowledging the way students learn
- the prior knowledge of the learner
- the need for in depth thinking and skills acquisition
- the value beyond school

Current curriculum reforms are moving away from 'coverage' of the curriculum to 'doing less better', in a more in depth and meaningful way, as schools educate students for the future. In the draft document of the revised New Zealand Curriculum, the Ministry's vision for young New Zealanders, calls for them to be:

Confident:

- positive in their own identity
- motivated and reliable
- enterprising
- resilient

Lifelong learners:

- literate and numerate
- critical and creative thinkers
- active seekers, users and creators of knowledge
- informed decision-makers

Connected:

- able to relate well to others
- effective users of communication tools

Actively involved:

- participants in a range of life contexts
- Contributors to the well being of New Zealanders.
- (Ministry of Education, 2006)

The current changes to the New Zealand Curriculum give licence to the teacher of a mixed ability class to take a more flexible approach to the curriculum and individual learner needs. It assumes that "all students can learn and succeed, but not necessarily on the same day, at the

same time, or in the same way. It poses no limits on how many students can be successful, on how much they can learn, or how rapidly they can advance" (Ministry of Education, 2006).

From the Literature
Inquiry-based Programmes: New Zealand perspectives

Inquiry learning is a loosely based terminology that is used synonymously with 'action learning' (Gawith, 2000), 'information literacy' (Gawith, 2001), 'independent learning' (Bartlett, 2005) or 'student research' (Hipkins, 2005b). In 1997, the New Zealand social studies curriculum introduced 'inquiry' as a process for accessing the curriculum. 'Inquiry learning' was defined as, collecting and analysing information, focused through the use of questions or hypotheses. From the processed information [the students] make generalisations, draw conclusions and communicate findings (Ministry of Education, 1997).

The sparse number of New Zealand studies suggest, that while teachers may believe that inquiry is a valuable process and have good intentions, they don't always have the knowledge or expertise to put it into effective practice (Gawith, 2000; Hipkins, 2005b). There is also a lack of knowledge about what inquiry really is. Hipkins, suggests that teachers often view 'research' as a set of information retrieval and repackaging skills and argues that there is a need to move beyond seeing 'research' as a process of finding out and reporting back (no matter how critically the information is evaluated). She maintains that the challenge for teachers is "to help students experience and understand research as *the* basis for new knowledge construction" (Hipkins, 2005a p.50). Problems also arise when teachers see research, inquiry, technology, ICT, problem solving, 'constructivism' and information literacy as one and the same thing (Gawith, 2001), which suggests a need for a clear definition.

Many inquiry models are introduced to schools through Ministry-funded ICT contracts, where students are taught to use ICT as a tool to 'find out', 'sort' and 'present' information, often based on student questions formulated without any prior knowledge. Gawith (2005), while reflecting on what is happening for primary students, asks the question;

> "Is it just because, having spent a whole lot of money putting ICT into schools, we need to justify it by doing more than word-processing; by showing how the internet provides access to the whole wide world of information if someone knows how to Google info, and stick info into Power Point, spreadsheets or multimedia programs, or what?" (p. 80)

In a meta-analysis of the literature since 1898, Gawith, (2000) reports an overwhelming consensus that "inquiry and resource-based learning are, on the whole, ineffective for students and challenging for teachers and students alike" (p. 2). Some of the problems cited include; the topics and purpose of the work were frequently not authentic to students, students appeared to have no intrinsic interest in the topic, often appeared unable to find information because they couldn't define the topic adequately, and often lacked sufficient background knowledge to know what needed to be found out. Hipkins and Brooker (2002) also suggest that while some students become very involved in investigating a question of their own choosing, it is vitally important for students to have knowledge about a topic before they know what they want to investigate. They further suggest that when planning an inquiry, "where many students may struggle to make sense of what is asked of them, 'experts' bring to the task their sense of purpose, the urgency of their questions, and their deep knowledge of the field" (Hipkins & Brooker, 2002, p. 23).

How then can we ensure that inquiry learning allows for authenticity where students have an intrinsic interest in the topic (or problem), and have enough knowledge to define a topic and build on their prior knowledge? Newmann, Secada, and Wehlage (1995, cited in Bishop, 2000)) define authentic learning by using three criteria: "construction of knowledge, disciplined inquiry, and value beyond school. Construction of knowledge is described as the expression of knowledge in oral or written discourse. Disciplined inquiry emphasizes cognitive processes and consists of: the use of a prior knowledge base, striving for in-depth understanding and expressing conclusions through elaborated or complex communication [thinking]" (Bishop, 2000, p.56). Value beyond school refers to using new knowledge to make a difference to the wider world. Thus an effective inquiry model can be seen to have three different but interconnected stages:

1. Building a knowledge base where the student is immersed in finding out and comprehending information about a topic, theme or concept.
2. Using the prior knowledge base to ask an open-ended question or questions to further analyse, evaluate and synthesise a more in depth and complex understanding of the topic, problem or concept, and build new knowledge.
3. Deciding how to use the new knowledge gained, to make a difference to the wider world; to look creatively at what is and what might be possible.

Gifted Programmes: International Perspectives

It is well documented in international literature that gifted programmes must be qualitatively different from the programme for all students (Gallagher, 2003; Maker & Nielson, 1995; Van Tassel-Baska, 2000). Research suggests that real learning for gifted students requires differentiation of content; which is abstract, complex, contains variety, includes the study of 'experts' within a discipline, and draws upon methods of inquiry, process which includes; higher order thinking, open-ended processing, paradox, tolerance of ambiguity, intuitive expression, discovery, and freedom of choice, product which encompasses; real world problems, real audiences, and making a difference, and the learning environment; which is modified to suit the learner's needs (Maker & Nielson, 1995; Van Tassel-Baska, 2000). Curricula should have structural variety which can "differ in degree of abstractness, complexity, organization and subject areas covered" (Maker & Nielson, 1995). Van Tassel-Baska (2003b) suggests, that the *precocity* of the learner, ' to learn fast and move ahead', the *intensity*, manifest in both emotional and cognitive responsiveness, and the *complexity* of higher order and abstract thinking are the three most important characteristics of gifted learners, on which one might focus, to create an optimal match between learner and the curriculum. Freedom to

choose topics of interest, learning experiences and how and who they work with has also been found to be a strong motivator of gifted students (Kanevsky, 2002; Maker, 1995).

Programme models, which have been developed over the years, have attempted to address the needs of gifted learners. Some current curricular models have been researched, developed and contain elements of both acceleration and enrichment (Maker & Nielson, 1995; Ministry of Education, 2000; Townsend, 2004; Van Tassel-Baska, 2003a). Criteria for assessing the effectiveness of models (Maker & Nielson, 1995; Van Tassel-Baska, 2003a) suggest, that they need to be appropriate to the environment, able to be applied to all curriculum areas, work for students of all ages, consider the practical needs for implementation, and be researched to show effectiveness.

While curriculum models, which have been developed for gifted learners in the past, such as the Autonomous Learner Model (Betts, 1991), the Multiple Intelligences Model (Gardner, 1983, in Maker & Nielson, 1995) and the School wide Enrichment Model (Renzulli & Reis, 1985), fit the effectiveness criteria, there is a growing argument that many models are limited because they are based on the assumption that good curriculum for the gifted, can be developed on individual learner interest, higher order thinking skills, and the creation of meaningful products alone. The argument against process/product models suggest that one of the most important and often over-looked criteria for a differentiated curriculum is "abstract content" (Hipkins & Brooker, 2002; Maker & Nielson, 1995; Shore & Irving, 2005; Van Tassel-Baska, 2003b). In a study on metacognition and flexibility, Shore suggests, that gifted students think more like 'experts' and draws the analogy that gifted students and experts "must have a store of suitably interconnected knowledge to be flexible thinkers" (p.169).

Gifted and Talented Students and the Inquiry Process

Can a teacher of a mixed ability classroom cater for the gifted learner within an inquiry pedagogical model? While there are no New Zealand studies on the use of inquiry learning as a model for gifted students, there are recent, significant international studies, which suggest that inquiry can be an effective model for differentiating teaching and learning for gifted students (Manconi, 2004; Shore & Irving, 2005)

During an inquiry approach to teaching and learning the teacher's role shifts from conveyor of content to that of a learning partner, engaged in a flexible, creative, and collaborative process, focussing on meaningful understanding. According to Dewey (1938) "learning by inquiry is as much about wonder and puzzlement, and trying to construct and test explanations of the phenomena that evoke these feelings, as it is about measuring any particular body of knowledge" (Manconi, 2004). The choice of experiences is also critical, not only must activities arouse students' interest; they must also engage their feelings, values and cognitions in order for them to have meaningful learning. Wells (1995, cited in Manconi, 2004) suggests that "activities must be sufficiently open-ended to allow alternate possibilities for consideration, thus providing challenges appropriate to individual students' current abilities, while at the same time encouraging them to collaborate with others in constructing shared understanding that is both practical and theoretical" (p.13).

It is understood that teaching through inquiry represents a major departure from traditional instruction. Manconi (2004), maintains that inquiry as an instructional process, refers to "how teaching and learning are executed, the nature of the classroom transactions, and the inquiry skills that will be practiced" (p.18). She draws on several theorists to suggest that real learning happens when the 'knowledge' that a student constructs during inquiry, leaves a motive for refining an understanding of the world, that 'learning,' is a process of making meaning, informed through context and purposes, and that inquiry 'teaching' is a conceptual structure that develops thinking skills and their associated cognitive and affective dimensions to their fullest potential (Byer, 1987, 1992; Chang-Wells & Wells, 1997 cited in Manconi, 2004).

This suggests that the inquiry approach to teaching and learning can be a powerful way for all students to learn if teachers are prepared to make changes to the way that 'knowledge' is constructed, 'learning' is activated and 'teaching' assumes a more constructivist approach. Manconi once again draws on several view points to suggest that:

1. "Teachers should listen to their students so as to get clues about how to best support their learning".
2. "Teachers should value the knowledge students already possess and challenge their students how to use their prior knowledge to gain new knowledge".
3. Teachers can no longer be seen as the ultimate source of knowledge and truth, shifting responsibility to the students themselves for monitoring and justifying their own work". (2004, p. 14)

Based on a study of inquiry as a pedagogical link between expertise and giftedness, Shore & Irving, (2005), suggest that the development of expert-like thinking (Shore, 2000; Shore & Kanevsky, 1993) in the context of inquiry, is encouraged through pedagogy that "entices students to ask good questions, to employ a variety of modes of learning, to invent multiple solutions to familiar problems, to carefully plan response strategies, and to relate old learning with new" (p.38). The significance of these studies is the relationship between how gifted students learn (Shore & Kanevsky, 1993), what needs to be differentiated (Maker & Nielson, 1995; Van Tassel-Baska, 2000) and the definition of knowledge, learning, and teaching through the inquiry process (Manconi, 2004), culminating in a definition of inquiry, which allows a gifted learner to draw more extensively and effectively on prior knowledge, enhance cognitive flexibility and creativity, and develop striking parallels with the meta-cognitive processes employed by experts (Shore & Irving, 2005).

CONCLUSION

From the discussion of the above literature, it can be seen that many New Zealand teachers don't always have a clear definition of inquiry learning (Gawith, 2005), and lack the expertise needed to put it into practice (Gawith, 2000; Hipkins 2005a, 2005b). However there is research evidence that it can be an effective pedagogy for all students including the gifted learner. Within the New Zealand context of a mixed ability classroom, an effective inquiry model which can be differentiated for the gifted leaner must be considered within the following framework:

The role of the teacher

- shifts from an expert to a facilitator of student learning; a co-constructor of knowledge
- understands the definition of inquiry
- understands the needs, interests, and abilities of students including the nature of giftedness
- ensures the authenticity of learning for all students
- has an extensive knowledge of the types of thinking and skills acquisition required by students
- Shows wonder and puzzlement and a thirst for new learning and can inspire this in the students.

How gifted students learn

- through authentic experiences where there is intrinsic interest and choice in what is learned that will engage the feelings, cognition and values of the student
- through having structure and support to develop the prior knowledge, skills and strategies to enable students to manipulate their own learning and become independent inquirers
- through structural variety, which can differ in the degree of abstraction, complexity, organization and subjects covered, necessary before a gifted student, engages in meaningful, expert-like learning
- through freedom to choose topics of interest, learning experiences and how and who they work with

The importance of prior knowledge

- all students need a sound knowledge base from which to ask relevant inquiry questions; they cannot ask a question to build on prior knowledge or develop new understanding if they 'don't know what they don't know'
- to develop more expert-like thinking, gifted students need to draw on a variety of inter-connected prior knowledge to look for alternative solutions to inquiry questions or problems
- *Value beyond school*
- students, especially gifted learners need to relate their learning to the wider world
- Students need to use their new learning to make a difference to something or somebody.

New Zealand recognises every teacher as a teacher of the gifted and talented student (Working Party on Gifted Education, 2001). With the above criteria as a focus for developing effective inquiry learning models within a mixed ability classroom, in combination with teachers' undertaking research-based professional development on inquiry learning pedagogy, we can make a difference for gifted students along with all learners. "The process of inquiry is a way of knowing, driven by a sense of agency, the passion, or curiosity, within the learner" (Shore & Irving, 2005).

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LA TROBE UNIVERSITY'S ABLE LEARNERS' ENRICHMENT PROGRAMME: AN INNOVATION IN REGIONAL AUSTRALIA

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ABSTRACT

In Australia, much needs to be done to nurture a culture of opportunity, challenge, and support to gifted children, and their parents, particularly so in regional and rural locations. Since 2000, via the *Able Learners Enrichment Programme* (ALEP) (www.latrobe.edu.au/giftedchildren), La Trobe University School of Education at La Trobe University's Bendigo campus has offered an annual enrichment workshop programme for gifted and talented children, and made available relevant knowledge and support for their parents in central Victoria. Several aspects of this innovative programme are overviewed: ALEP's development, feedback comments from parents, and reflective comments from participating education students.

1. THE CHALLENGE OF GIFTED EDUCATION PROVISION IN RURAL AREAS.

A central paradox of Australian national life is that despite its vast geographical expanse, more than 85 % of its population is urban–based, clustered in just a dozen cities, and along the narrow urban strips mainly along the east coast. In the state of Victoria for example, 70 % of its 5 million people live in Melbourne. Life for the minority of families and children living in regional and rural Australia in general means poorer access to a wide range of services, opportunities and experiences, compared with their urban cousins; for example, employment, medical, human and business services, and educational and wider cultural experiences. Regional university campuses are a phenomenon of the past 15 years in Australia and provide new opportunities for addressing long standing educational inequities. Of the Melbourne-based La Trobe University with its 27,000 students, about 20 % are based at regional campuses, the largest of which is the Bendigo one with more than 4,000 students. Of Bendigo's students in 2005, most (79.1 %) were from rural areas, while another 0.7 % originate from isolated areas.

A recent national study concluded that across the nation, there is a strong spatial clustering of child disadvantage, a key dimension of which is the regionality and rurality factor. They concluded that '*…children living outside capital cities face a much higher risk of social exclusion than those living within the capital cities'*, (Harding, McNamara, Tanton, Daly, and Yap. 2006, p 27) Given that this disadvantage can be said to apply to all regional and rural children, it applies even more so to sub-groups (not mutually exclusive of one another) of this population: children with disabilities or ongoing medical difficulties, those of Aboriginal cultural background, children from remote area locations, and those which are gifted and talented. This latest piece of research just adds to a considerable archive of research on regional and rural educational disadvantage and the corresponding poorer school retention rates in rural, as compared with urban, Australia. Research in New Zealand shows a similar situation (Riley, 2003), with the Working Party on Gifted Education (quoted in Riley, 2003) identifying to unique needs of gifted children in rural New Zealand.

By virtue of geographical location, gifted and talented children in regional and rural areas typically experience inequitable access opportunities to appropriate intellectual and cultural experiences. For a combination of reasons, they tend to be under-identified (Commonwealth of Australia, 2001) and their specific learning needs are often less frequently recognized, compared with their urban cousins. This situation is not unique to Australia, with the same situation found around the world (Ayr, 2003; Colangelo, Assouline, and New, 1999). A recent study in regional Victoria for example, found considerable reluctance among both teachers and parents to identify children attending school in small towns as gifted or talented (Faulkner, 2006). Another study in central Victoria which involved interviewing the principals of rural schools about their school policy and education provision for gifted children found that in most schools there was minimal or no provision in both these areas (Chambers, 2004).

There is a limited international literature on the challenges for gifted education in non-urban or rural areas, (Baldus, 2003; Bowd, 2003; Colangelo, Assouline & New, 1999), and an even sparser literature in Australia. However, this problem was recognized at the Australia national level via the 2001 Senate Report, *The Education of Gifted Children*, (Commonwealth of Australia, 2001) which comprehensively explored many dimensions of the education of gifted children across Australia. This Report noted that low socio-economic status, rural isolation, and Indigenous background are key factors in the under-identification of gifted children, which in turn can work to limit their self-aspirations, their healthy development as able learners, and schools' educational provision for them.

The Senate Report also made recommendations on the following findings, that, 'negative attitudes and mistaken beliefs about gifted children appear to be widespread' (Commonwealth of Australia 2001, xiii) and that 'untrained teachers are more likely to identify as gifted children of the dominant culture and less likely to notice giftedness among minority or underprivileged groups' (Commonwealth of Australia 2001, xiv). One of these recommendations (*Recommendation 14)* urged that in the light of the evidence about the apparent paucity of Australian universities' pre-service teacher education content relating to giftedness and gifted education, that '…. newly graduated teachers should have at least a semester unit on the special needs of gifted children in their degrees. This should include training in the identification of gifted children and the pedagogy of teaching them' (Commonwealth of Australia 2001, 96). As authors of this paper, we endorse this recommendation, while noting also a more pressing need for such content inclusion in a university B.Ed. programme in regional Australia, which is precisely what we at La Trobe are doing through the *Able Learners Enrichment Programme* (ALEP).

Consistent with the 2001 Senate Report findings, the wide-spread under-identification of gifted and talented children in regional and rural areas contributes to the systemic educational under provision for this population. Since 2000, the ALEP for gifted children in regional Victoria at the Bendigo campus of Trobe University has begun to address some aspects of this problem. This Programme is unique in Victoria. There is no other university-community programme like this currently offered in Victoria, let alone regional Victoria. From its beginning in 2000, the *Able Learners Enrichment Programme* has been received with high interest from many parents and from the young

people themselves.

In Sydney, the Gifted Education, Research Resource and Information Centre (GERRIC) located at the University of NSW offers a range of programmes for children, parents and teachers, as do the regional campuses of Charles Sturt University. In the state of Victoria, the University of Melbourne offers evening professional development programmes for teachers but these do not extend to regional Victoria. Similarly, in urban universities, no programmes of a community nature are offered for primary or lower secondary school children. Indeed, no other Victorian university is running anything similar to the ALEP for gifted and talented students and their parents. In 2000 it began as a very modest programme, running totally on volunteer contributions for the first five years. Its expansion from 2005 with Telstra Community Development Foundation funding has provided a small though significant paid time component for the position of the Programme Co-coordinator, just 5 hours a week.

2. THE REGIONAL CONTEXT FOR THIS PROGRAMME IN NORTHERN VICTORIA

The Bendigo campus of La Trobe University with 4,100 students is located in central Victoria, 150 km north-west of Melbourne. With a city population of 100,000, Bendigo's campus draws its students primarily from a wide, and typically sparsely populated regional expanse from northern Victoria. This rural hinterland to this service city is loosely bounded by the river towns of Mildura (45,000), Swan Hill (8,000) and Echuca (9,000) in the north, by Shepparton (35,000) and Benalla (15,000) in the east, by Maryborough (9,000) in the west, and Kyneton (5,000) in the south. Bendigo is a gateway to the drier regions of the continent. While distances are not great compared with those in other states, nonetheless, the tyranny of distance for those living in north central Victoria remains an ever-present reality. For example, Bendigo and Mildura are more than 400 km distant. Northern Victoria is not a wealthy region, affected as it is by the vagaries of climate, particularly drought, and many of the La Trobe students who have come from rural locations or small towns are first-generation tertiary educated representatives in their families of origin.

3. HISTORY OF THE ABLE LEARNERS ENRICHMENT PROGRAMME

La Trobe's ALEP began in 2000 as a modest one day a year workshop programme for gifted children in regional Victoria. The first programme in 2000 offered a choice of just 7 workshops for children across the age range 7–14. This soon grew to between 10 or 14 workshops, so that on these days 150 – 220 children and their parents would visit the campus. From its beginnings, the ALEP has always been a non-selective open access programme. While schools are invited to suggest or nominate children who would benefit from attending, its other main networks of publicity have been first via the parent associations for the gifted and talented, second, from the web site since it was established in 2005, and third, increasingly from word of mouth. Thus, there are many children who attend who have not been formally assessed on a psychological test. Via the publicity networks we use, the ALEP attracts a mix of children, those who are bright and most competent learners, as well as those who on any external indicators would be regarded as gifted.

From the beginning, the ALEP has provided complementary enrichment agendas for both children and their parents. For children, the largely campus-based programme has offered a variety of interest-based workshops led by a combination of university academics from across the campus, community teachers, and more recently, by La Trobe's B.Ed. and M.Ed students. Though the majority of children attending ALEP come from Bendigo and immediate surrounding districts, some parents have travelled distances of between 2 and 5 hours to have their children participate in these workshops. For parents, a guest speaker programme on giftedness or aspects of gifted education has remained a foundation feature of this university-regional community programme.

The ALEP is consistent with La Trobe University's mission statement to provide highly qualified graduates capable of meeting the diverse needs of the communities served by the University and to be an innovative provider of higher education programmes in regional Victoria.

Between 2000 and 2004, workshop offerings were led by a combination of university academics, co-opted staff from Bendigo-based institutions such as the Science Discovery Centre and the Bendigo Art Gallery, and by committed community educators, or by outstanding school-based teachers. In this period it was one day a year programme only, and between 12 and 15 half and full day workshops were offered. The range was very wide inclusive of such themes as ancient mathematical systems, an interactive introduction to ancient Greek and Roman as a means of better understanding contemporary English, the practice and mechanics of boomerang throwing, understanding the environment from geological field excursions, competitive chess, and introductory psychology. Student workshop numbers were generally restricted to 16 and workshops generally had age bands of 3 to 4 years, and catering for children up to 14 years of age.

With family incomes in country areas generally lower than that of their capital city counterparts the cost to participants has been kept to a minimum. This has been a significant achievement given the current macro-political climate affecting Australian universities which now strongly encourages an entrepreneurial and a customer pays culture, concomitant with steadily reducing government funding to tertiary education. Within this climate, those busy academics who have taken on responsibility as workshop tutors have generously donated their time for the joy of working with gifted children, and in so doing have contributed in a small but significant way to the wider community. Parents in the country are extremely grateful that they can afford to access a programme of this sort and still afford to travel to get here.

The ALEP has developed significantly in the last couple of years, following some modest funding from the *Telstra Community Development Foundation*. Through 2005, and 2006, ALEP now offers three separate workshop days for children across the year, and in addition, specialist speakers are contracted to address parents on each of these days on topics of relevance to the giftedness and gifted education; for example, knowledge about gifted and talented learners, learning styles, issues of parenting with gifted children, and, issues relating to parent-school relationships. Since 2005, the Co-ordinator of the ALEP Pam Lyons, has taken on an additional role of organising a conference on a significant theme for teachers and parents in November each year. In the last two years, final year B. Education and M.Ed. students as part of their elective studies on giftedness, have been ALEP workshop leaders a stimulating role which has provided them with some practical educative experience of very able learners.

Although the beginning of the ALEP programme preceded the Australian Government 2001 Senate Report *The Education of Gifted Children* (Commonwealth of Australia, 2001), the recommendations of that report provide an important rationale for developing a programme of this sort in regional Australia. The Report noted the widespread negative attitudes towards intellectual giftedness across the Australian community, and recommended that teacher education programmes should give particular attention to gifted children who experience educational disadvantage for a number of reasons, disadvantages such as low socio economic status and rural isolation.

4. INVOLVING THE B. ED. AND M.ED STUDENTS IN THE WORKSHOPS

The development of ALEP with *Telstra Community Development Foundation* funding enabled new possibilities to develop. As some final year students in the pre-service B.Ed. course enrol in gifted education studies as their course electives, it seemed to the authors of this paper, that the ALEP programme could provide valuable learning experiences and practical teaching opportunities for these students. It could also seek to better address concerns of the 2001 Senate Report, which is corroborated by other research (Carrington & Bailey, 2000; Plunkett, 2000) From 2005 therefore, these B. Ed. students, (and in 2006, Master of Education coursework students too), have participated in the ALEP as workshop tutors. The subject *Gifted and Talented Youth* had required that students undertake a case study of a very able learner in the school setting, and the ALEP workshops within which La Trobe students would participate as workshop tutors, is scheduled towards the end of the teaching semester programme. Thus in these two complementary ways in this subject, final year and post graduate education students now gain practical experience with gifted and talented children.

5. SOME EVALUATIONS FROM THE ALEP PROGRAMME

Written evaluations have been formally completed by parents of children attending the ALEP, and by La Trobe education students. There are also many positive and encouraging anecdotal comments from ALEP tutors, both university lecturers and community teachers, which we have not included in this paper. Instead here we include some of the qualitative observations of the parents and from the La Trobe education students. The children participating were not surveyed but the anecdotal comments from them consist of statements of the amount of fun they had and the fact that they made new friends. Most importantly, they all left with smiles and a wish to return.

(i) Parent Comments on the benefits of the ALEP for their Children

After each workshop day, parents are surveyed about the ALEP and invited to share their views about its value for their children, and for themselves. The following responses are from parents to one question on the 10 item questionnaire (‘*what do you believe your children get out of the programme?*’).

“My child enjoys attending. The challenge and enjoyment is something totally different” (P1)
“She really enjoyed extending her interests, as or example, ‘Latin with a focus on Harry Potter’ She was interested in both aspects of the programme and came home and worked on the homework sheets, contact with like minds.” (P2)
“The chance to explore topics outside the narrow confines of normal class curriculum.” (P3)
“The opportunity to mix with other able learners – my daughter attends a small school where these opportunities are limited.” (P4)
“‘Jason’ really enjoyed participation in the ALEP. As the mother of a child with Aspergers, I liked the way he worked with another boy, and going back to the car, he was saying goodbye to others in the group.” (P5)
“My child gained acceptance, friends, and stimulation that aren’t in the current education system.” (P6)
“Freedom to think, self esteem, and social interaction” (P7)
“Extra stimulation that just doesn’t happen at school. I’ve noticed that while the workshops cater for gifted children, they don’t lose sight of the fact that those gifted students are children.” (P8)

(ii) Parent Comments on the Value of the ALEP Parent Information Sessions

“Please keep up the ALEP. I’d be quite interested in attending short affordable courses learning about giftedness and supporting gifted individuals.” (P9)
“The information sessions are useful, but the level of information about the topic is irrelevant if teachers have little knowledge in this area.” (P10)
“I really enjoyed finally meeting people (parents and guest speakers) who understand what I feel.” (P11)
“I would love to have attended them, but work has prevented me. My husband attended one and found it very informative.” (P12)
“We need all the help we can get.” (P13)
“I have only attended one parent information session to date and found it very interesting: lots of websites, and information to research to help cope with behaviour etc. Felt comfortable to be ‘in the same boat’ as other parents. Was great to listen to other parents’ concerns.” (P14)
“Very informative – obtained some great hints and insights.” (P15)
“Excellent! Keep them coming! Would be good to have smaller group workshops for parents which would allow discussing personal case studies.”(P16)

(iii) Reflective Observations of La Trobe University education students from their participation in the ALEP workshops

Example 1: **The ‘Pasta-Making’ workshop for children aged 7 – 9 years**

“We had varied responses as to why children chose the pasta making workshop. One girl said that she liked to learn new skills and then practice them by teaching them, an amazing response from a 7 year old.”

"The workshop was very 'hands-on', the students were very observant, quick to pick up skills, listened well and used their initiative to help others. Given that these groups have never been together, they were very comfortable and cohesive. I recall one boy stacking the pasta sheets for a girl *"I'll put your pasta in piles of 5 for you so that it will be easier"* This same boy offered to dismantle the pasta machine because he remembered how it went together."

"I was intrigued to see a girl of 7 years sitting at her desk knitting while she waited for the pasta to cook. Her response to my question about the knitting was, '*I take it with me, and use it if I need to fill in time*' what a practical solution! I wondered how receptive a teacher would be to a child knitting in class!"

"On reflection of the workshop, I think that we needed to be more selective about how we ask questions to extend their thinking. We need to avoid questions with yes/no answers, and ask more investigative questions to stimulate thinking."

Example 2: **The 'Search for Extraterrestrial Intelligence' workshop for children aged 7 – 9 years**

"As preparation for the class, one child had already researched current views of life on Mars while others in the group thought more conventionally of cartoon space monsters. This experience brought home *the importance of being flexible in both your definition of giftedness and the provision of learning experiences for gifted and talented children.* "

"One of our activities that had been tried successfully by my fellow presenter with a grade 5/6 class fell completely flat for several reasons. It involved role-playing trying to communicate with an alien. One boy could not get past the idea that the only realistic aliens would be algae or bacteria, and communication with them would be impossible, Another found it too boring because he had been looking forward to discussing all the possibilities of what and where extraterrestrial life may be."

Example 3: **The 'Acting Up' workshop for children aged 7 – 9 years**

"Assuming that I'd know exactly what was going to happen with the students, I was pleasantly surprised when they were more than willing to make suggestions on how we might vary the exercises we had planned. Although not all suggestions were viable, they were happy to hear the reasons for this, accepted this and continued to enjoy themselves."

"I was surprised at how well they were able to work on their own with minimal assistance from myself or from my partner so when it came to the final activity for the day, we were able to alter the plan and allow the `students to work on their own which ended up with them being able to make up their own play and present their own version of a fairytale to an audience."

"If I was conducting another workshop, I now know that I can afford to be flexible in my planning so as to allow for some independent learning time etc for the students, as they seem to appreciate this. Also, the vast range of personalities has shown me that no two gifted children will ever be the same."

Example 4: **The 'Bushrangers and Outlaws' workshop for children aged 7 – 9 years**

"It was great to see these kids really enjoying themselves and it was obvious that they had chosen the topic because it was something that they were really interested. Those kids taught me more about bushrangers that day than I had known previously!"
"One thing that I noticed about these kids was that they all got along quite well considering they had never met each other before."

Example 5: **The 'Puzzlemania' Workshop for children aged 7 – 9 years**

"I did enjoy the different ways the children approached the puzzles. Some flitted from puzzle to puzzle and one boy roamed the room so frequently, he completed just one puzzle in an hour. Others displayed great determination to stick at the task till the end, particularly the girls who were definitely the quieter ones in the group.

The comment I most remember though was one 8 year old boy saying to me '*I'm gifted in maths*' as he began to solve a magic square puzzle, only to give up five minutes later, and not return to the maths puzzles for the rest of the session. I wondered where his perception of 'being gifted' had come from, and concluded that he lacked the 'judgement' in relating to boasting of his abilities that the American expert on giftedness Dr James Webb, spoke of in the video we saw."

Example 6: **Language Workshop for children aged 9 – 10 years**

"At first, I had to admit that I was very apprehensive about doing the workshop due to my fear about being possibly outsmarted by them. However, my fears were quickly alleviated as I got to know them. It was great to see that since they were all of reasonably the same level or at least interests, they socialized really well and actually surprised me how mature they were by using their manners all the time, listening to you, etc."

"We had one activity where students had to talk about a specific topic for about a minute. It was amazing listening to the topics they came up with (Al Capone, Ronnie Biggs, and Tutankhamen). This programme didn't really give me much of an idea as to how to teach these individuals but it did give me great insight into what they might be like behaviour wise and what they are capable of."

6. OUR OWN REFLECTIONS ON THESE COMMENTS

The Master of Education or B. Ed. students who ran these workshops did so as part of their assessment, and so the planning and teaching of a group of gifted students formed part of their learning. The academic level of the workshops was aimed approximately two to three years above the chronological age of the children participating. The tutors chose topics they were passionate about so the workshops were fun for all. The practical experience of teaching gifted students made a significant difference to their understanding of the characteristics and needs of these students. As can be seen from the previous reflections, a purely theoretical study of giftedness does not completely prepare teachers for the variety of differences they will encounter when teaching gifted children. Following these workshops, both authors ran debriefings with the tutors and confirmed that their increased understanding of the special needs of gifted children had made them well able to teach in this field.

7. FUTURE DIRECTIONS

The ALEP will continue to develop, and we will continue to learn from all the participants. Many children and their parents, having participated just once, look forward to returning again to the workshops. Some repeatedly travel several hours to the programme. We have been encouraged by the positive comments from all categories of participant, though just a selection from parents and La Trobe's Education students are provided in this paper. The ALEP has provided a valued experiential and pedagogic focus for these La Trobe students complementing the usual lectures, seminars, and course readings. An added benefit is the anecdotal evidence of the increased awareness of the existence of giftedness in rural areas that this programme has achieved both in schools and in the general community.

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CHALLENGED BY CHANCE?
HOW CAN WE IMPROVE THE ODDS FOR GIFTED CHILDREN IN THEIR TRANSITION TO SCHOOL?

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ABSTRACT

Transition to school is a significant time when self concept and patterns of learning that influence future learning are established. What factors are important for *gifted* learners in this transition? How can teachers and parents ensure that gifted children's needs are addressed? This paper reports the findings of research investigating gifted children starting school. It presents views of children in the study, expressing their desire for learning that '*stretches their brains*'. It explores the importance of communication between sectors, and developing relationships between teachers and parents.

BACKGROUND

Traditionally, the odds have not favoured gifted children in New Zealand education. Gifted education in New Zealand has been haphazard and left to committed teachers in their particular contexts (Moltzen, 2004). It may have been by chance that children have been recognised as gifted and placed with one of the teachers knowledgeable and committed to catering for the needs of the gifted children. In school, most gifted children are in classes alongside their age peers, while in early childhood settings there has been limited formal identification of gifted children. There is reluctance, not uncommon in early childhood, to ascribe the label of gifted to young children

It could be argued that the curriculum documents in both sectors allow for the provision of gifted children by the emphasis on catering for individual needs. However, with minimal professional development in gifted education, teachers have had little guidance in recognising and providing programmes for the gifted children in their care. The handbook, *Gifted children: meeting their needs in New Zealand schools* (Ministry of Education, 2000), was the first of several catalysts in the past six years to promote changes. The early childhood document, *Pathways to the future* (Ministry of Education, 2002) did not reflect the same emphasis on gifted children, concentrating more on access to early childhood education. It did, however, discuss the 'strategy to promote coherence of education between birth and eight years' (Ministry of Education, 2002, p17), thus covering the transition period.

In June 2003, a report from a ministerial working party was adopted as the Government Policy in Gifted Education with the release of the *Initiatives for gifted children*, and supported the development of a team of national advisors to work in this field. The *Initiatives* raised the place of gifted education in early childhood contexts as an area for future investigation. A further recommendation from the *Initiatives* was for research to be undertaken regarding current practices of gifted education in New Zealand schools. In the report from this research, transitions were identified as an area of concern with the 'need of more continuous provisions for gifted children' (Ministry of Education, 2004, p8).

The most recent catalyst for raising the profile of gifted education is the amendment in the National Administrative Guidelines, in February 2005, mandating the legal requirement for schools to show how they identify and provide for gifted children. It is hoped that now, with these moves in gifted education, that gifted children starting school will 'stand a far great chance that their needs will be recognised, understood and catered for' (Moltzen, 2004, p28). In the study reported in this paper, the gifted children completed their transition to school in 2003, and their first transition within school in 2004. The latest initiative would not have influenced their experiences.

Giftedness and young children

The construct of giftedness is itself contentious, particularly when the term is applied to young children. Gagné (2003) recognizes giftedness potential in children, but acknowledges talent in adults. Tannenbaum (2003) acknowledges that children may be seen as advanced or showing promise. The Ministry of Education (2000) guidelines signal a multi-categorical approach to identification of giftedness in children, a position which mirrors the work on Multiple Intelligences by Gardner
(Karolyi, Ramos-Ford, & Gardner, 2003).

In recent New Zealand research, it has been reported that the role of the early childhood sector in gifted education in New Zealand needs further discussion (Keen, 2005).

However key writers in this field in early childhood education signal the advanced development of children in relation to their peer group. Gifted young children are defined as

> *…Those who have the capacity to learn at a pace and level of complexity that is significantly advanced of their age peers in any domain or domains that are valued in and promoted by their socio-cultural group* (Porter, 1999, p 33).

It is recognized that this advancement may take forms in different domains. Cathie Harrison (1999) also identifies the need for specific provision in order to meet the needs of these advanced children within their educational contexts, in early childhood centres or primary school. A gifted child is seen as …

> *…one who performs or has the ability to perform at a level significantly beyond his/her chronologically aged peers and whose unique ability and characteristics require special provision and social and emotional support from the family, community and educational contexts* (Harrison, 1999, p20).

What constitutes transition to school?

Like that of giftedness, the construct of transition can also be viewed from multiple perspectives. It can be viewed as the initial day of school start. Fabian (2002) discussed the demonstration of resilience of normal development under difficult conditions as constituting successful

transition. In contrast, Kienig (2002) recognized successful transition as being when learners satisfy their own needs while at the same time meeting the needs of the new environment.

For gifted children whose development is other than normal, this may prove a difficult undertaking, especially if the environment does not allow the children to have the choice or opportunity to satisfy their a-typical needs.

Margetts (2002) and Yeboah (2002) viewed successful transition as being achieved when the children overcome uncertainties and adjust to changes and new challenges in new environments.

However a longer time which involves the children not only 'settling' into the new environment, but also establishing their role as pupils in the school allows a different view of the transition process (Peters, 2004). Learning to be a pupil is seen as the first step in the process of becoming a fully established member of the new community (Fabian & Dunlop (2002). This requires children to cope with reorganizing their personal identity and establishing their status in the new setting.

METHODOLOGY

For social research to address questions about lives of people, the method needs to be dynamic and allow the researcher to collect information which helps to understand interactions in context (Cohen, Manion & Morrison, 2002). For this reason qualitative methodology, in the form of case studies, was chosen as this approach uses an interactive, context bound and interpretive approach, and seeks to gain understanding from the participant's perspective. Collective case study approach can be used to combine single case studies (Stake, 2003) and allows parallels and patterns concerning specific phenomena in different settings to be analysed. In this research six case studies were undertaken, and compared and contrasted to identify themes.

Participation in the research was invited through letters sent to parents of seven and eight year old children in attendance at the two one-day- school programmes, George Parkyn Centre for Gifted Children and Gifted Kids Programme in the greater Auckland area. Accompanying questionnaires were returned to the researcher and the five participants were then involved in follow-up interviews. Parents nominated the early childhood teachers and the new entrant teachers who had been involved with their children, and participation in the study was contingent on agreement from the two teachers to also be involved. The sampling strategy used in the research was aligned with Neuman's 'haphazard sampling (2000, p 196) and Cohen et al's (2000, p 102) 'convenience sampling' as it relied on all participants who had responded.

Also included in the sample was a participant who had contacted the researcher seeking involvement. This is aligned to 'snowball sampling' (Cohen et al, 2000, p 104). The decision was made to include this participant as the parent had opted for home schooling after the initial school year, an option not represented in the other participants.

Semi-structured interviews were conducted with parents, to clarify and explore ideas explained in the questionnaires, before interviews were conducted with the two teachers and the children themselves. The children at the time of interviews in 2005 were seven or eight years old, so all the data of the experience of transition was being accessed retrospectively. The data may have been affected therefore by accuracy of memory.

The final sample comprised three girls and three boys, amongst them twins, from a range of areas in Auckland and from a range of school decile rankings.

A quick introduction to the participants in this study would be appropriate. Please note that the names used for the children in this paper are the pseudonyms chosen by the children themselves.

- Laura – the only child recognised as 'gifted' prior to school - whose language skills, both oral and written, were very advanced.
- Conrad, a bright and bubbly personality, was very advanced in language skills and maths, and showing promise in languages and music.
- Tooty, whose sleeplessness and inability to switch off at nights as a preschooler drove his grandmother to seek professional help, only to be told that it was not ADHD and that 'she had a tiger by the tail and was in for an interesting ride'. His strengths were in Mathematics and computer skills.
- The twins: Sasha, whose social adjustment was a concern as she was very shy and clingy, while Squirtle was considered as having adjustment difficulties and was again very shy. Both children had advanced communication skills.
- Doughnut was very advanced in language skills and showed promise in music.

What were the results and the findings of this study?

By following the stories of the children's experiences, it is possible to identify the factors that contributed to the finding that *too much was dependant on 'chance'*. The odds were stacked against not only the children, but also the parents and teachers in both sectors during this important transition time.

Common definitions and understanding of giftedness in young children, communication between sector educators, the establishment of reciprocal relationships with parents and the provision of intellectual stimulation for the children were all dependent on serendipity, the chance that the children were– ' in the right place at the right time with the right people' (Wink & Putney, 2002, p 160).

Considering the odds in early childhood

In early childhood, advanced development was easily identified, especially in terms of language and vocabulary. This would be consistent with literature on identification of gifted children.

…by the time she was about nine months old her vocab was probably around like a two and a half year old (Laura's mother)

… by the time he was a year old…he was really advanced with his vocab … He was aware of ideas that were way beyond his years (Tooty's grandmother).

Advanced communication was a key indicator, but the word 'gifted' proved more elusive. However, parents didn't necessarily view the advanced language ability as an indicator of giftedness, and attributed the children's ability to other factors, such as family traits.

I was aware of his early development …but both of us yack like nobody's business so we just assumed that this was an inherited trait (Conrad's mother).

Even when the Early Childhood teachers indicated advanced development, the parents didn't necessarily understand the significance of their comments.

I knew she was bright…but having no yardstick…I just thought there are probably lots of kids who do this sort of thing… (Doughnut's mother).

… the teacher … would tell us things that our children had done and we would go WHAT!... and we would say Not our kids! (Twins' mother)

… in 12 years...she had never struck anyone like Doughnut, but I just took it as a grain of salt, and it didn't occur to me… (Doughnut's mother).

This was not surprising as the Early Childhood teachers also didn't recognize 'giftedness'…or the 'strength' of these children's strengths. They attributed the children's ability to other factors such as home language, particularly in centres where there were many children whose fist language was not English.

…when you have a child like Conrad [articulate and with good English] *they really stand out* (Conrad's ECE teacher).

Both parents were bright and communicated so well you look and go Oh well the child is like that and it's natural for them rather than looking at this child is gifted (Twins' ECE teacher).

Both Porter (2004) and Harrison (2000) agree that in early childhood, the teachers may miss identification of children's strengths if their expectations are limiting, or the tasks provided do not provide opportunity to witness the abilities of the children.

The children themselves didn't discuss themselves as gifted, choosing rather to discuss themselves in terms of their thinking and their capacity for learning.

…extending my thinking (Conrad)

…thinking and learning cause I can take in a lot at one time (Doughnut)

…stretching my brain (Laura)

In terms of provision to match the needs of these advanced children, in only one context was there evidence of a personalised programme. This tended to be more focused about what was considered deficient in the development rather than a focus on development of the obvious areas of strength. The notion of the 'well rounded child' or 'balanced child' was highlighted in several interviews by early childhood teachers.

In most cases it was provision only when time and energy allowed. There was little evidence of informed systematic planning based on knowledge of the needs of gifted children.

We sit down and look as a group to see how we can extend this child…we may not have special provisions simply because of the ratio and the demand…(Tooty's ECE teacher).

We have a system where we try to identify individual needs and then extend them…spend some one to one time …just give them what we can really (Conrad's ECE teacher).

However what constituted a 'need' was also dependent on chance, on the adult 'expert', their background and beliefs, and so the resulting interpretations and decisions varied between settings. The adult view was at times at odds with that of the children.

Take Laura for example. In her early childhood context her teacher thought her social development was of concern, and therefore programmed activities to socialise her.

Laura had areas we had to look at…we didn't think she was competent [on the computer]...our emphasis [in art] to encourage more time and care …and socially we were worried…she was solitary in her play… (Laura's ECE teacher).

The same child, a day later, in her new entrant class was seen quite differently, and consequently treated quite differently, with acceptance of time spent alone and not interacting with others.

she was sort of socially so mature that at times I think she found it difficult to work with the kids… (Laura's NE teacher).

Laura herself didn't feel she had any worries once she had made a friend of similar intellect.

Provision also depended on the personal philosophy of the teacher. One contrasting area was the attitude to promoting reading in the centres.

But to me picking up a book and having to read it should be something to be kept very special…especially for school… (Laura's ECE teacher)

If we already know that he is reading…why wait for a year? (Twins' ECE teacher)

Thus different chances were offered in different settings, dependent on individuals not on effectively designed policies and well informed practices.

The message from the children was that their early childhood experiences were enjoyable. The activities allowed for choice and some autonomy, but they lacked challenge in intellectual stimulation.

…kindy teachers were nice but they could have set work that was a bit harder for me…' (Laura)

Communication between sectors: A significant factor in this study was the lack of data from early childhood being presented at school. In only one case was there a chance for information to be sent to the school. Even in this case the opportunity was missed. Because of the way the language was couched, and the lack of common understanding about the indicators of giftedness, the new entrant teacher did not recognize the significance of the comments made by the ECE educator. Such a finding confirms other work on transitions to school by Timperley, McNaughton, Howie and Robinson (2003).

Parents would have welcomed some formal communication between sectors as a way of shielding them from the need to establish their credibility in the new environment, having some support as to the nature of the learning needs of the children.

[The information] *provided the first step for you* (Laura's mother).

I would love to see that whatever they achieved at kindy is communicated to the school (Tooty's grandmother).

New entrant teachers also signaled the usefulness such information would be to them, to eliminate wasted assessment time, and to help them prepare to meet the needs of the children with resources and equipment.

There would have been no need for me to do the SEA test had I known that it was a waste of his time… They could tell me the things they have done already… so there's no repetition (Tooty's NE teacher).

What we need to have is a profile or record of learning that follow the children because that would have saved me a good couple of weeks or even a month… and I could have looked at it and gone Oh my goodness, let's not start him here on the basics (Conrad's NE teacher).

Starting school: Any prior to school visits were orientations to the environment, consisting of one way communication of the expectations, and information of how parents could support their children in schools. Any information regarding parent knowledge of their children and their learning needs were unsolicited in the process. For the parents, this was a different positioning for them after their involvement in the early childhood contexts. Involvement of parents in longer term transition plans related to individual needs would have potential for understanding the children's and parents' voices and needs in the process (Dockett & Perry, 2001).

Of significance in the children's comments was their acceptance of the changes, and the ability to adapt quickly to their new environments. Their comments mirrored those of children in transition studies carried out in Australia by Dockett and Perry (2001) raising issues of rules, environments, and friendships as key areas of immediate concern. As in their study, the children in this study clearly had expectations of progress and new learning and the intellectual stimulation they were seeking.

What were the odds at school? Once again the chances of having advanced language recognized were very high. Given the emphasis on literacy in the National Administration Guidelines for schools, this is not surprising. The label of 'Gifted' was accepted by three teachers who believed there was such a phenomenon.

It was pretty obvious within a few days of school… that she was going to be one of those sparkly kids…just miles ahead (Laura's NE teacher).

I think on day one I knew he was special. I knew he was intelligent but by the end of the first week I knew that no way did we have a programme that would suit him (Tooty's NE teacher).

… his ability showed through very quickly (Conrad's NE teacher).

Even without formal assessment, or training in gifted education, four of the five teachers recognized the unique abilities of these children. The fifth teacher was a beginning teacher, and may not have had the experience and knowledge of children against which to base judgment of the children. The twins in her class didn't disclose their ability. In fact Squirtle displayed troubling behaviours such as sitting under the desk which once again concerned his parents and his teacher as to his readiness for school and whether he had behavioral disorders.

Only two of the children experienced any modification in class programmes in response to their obviously advanced learning. A significant factor mentioned by parents concerned the commitment of the individual teachers.

> *It was actually the particular teacher … that would take the time to go and look for something…who gave him extra to push him beyond…*(Tooty's grandmother).

The parents in transition: A key factor in the transition time was the positioning of parents in the process. Transition time for parents can be traumatic as their role is changing (Fox, Dunlop & Cushing, 2002) and for parents of gifted children this may be exacerbated by their confusion about the child's development (Porter, 2002).

The parents were concerned over the children's development and learning needs, not so focused on their being 'gifted' They relied on teacher knowledge to assist in the children's adjustment to school and the experiences they might encounter.

"*I thought if you [the teacher] say he has needs then you'll deal with it…*' (Conrad's mother).

Parents trusted the teachers to have the necessary knowledge about children's development to cater for them appropriately. However the teachers readily admitted their lack of knowledge and confidence to honour such trust.

I didn't feel confident…I felt scared and I was worried I was doing damage to him (Tooty's NE teacher).

I thought gifted kids would learn regardless…you were probably going to bore them but they would learn regardless (Conrad's NE teacher).

It was perplexing why the teachers did not draw on parental knowledge of their children to support them in their classes as each had different expertise (Hughes, 2003). Instead parents felt they were removed from dialogue about their children and unsupported over their anxieties about their children's development.

I had the sense that some of the teachers got fed up with my anxieties and my concerns… they sort of probably put me in the kind of neurotic precious parent thing…and I think if they had just sat down and had a really good talk to me for maybe an hour…it was never quite satisfying from my point of view and I felt I was being an irritant to them (Twins' mother).

The feelings of the parents intensified during the transition within school in the second year, and as they became more proactive in advocating for their children's needs, which was in many cases equated to their being perceived as 'pushy parents' (Riley, 1999). This position is described also by Colangelo (2003), when a mismatch of attitude, where parents want action, but they are unsupported by the school, can lead to parents withdrawing their support from the school or seeking help outside the setting.

Transition within school: Because the children were interviewed in the second year, the interviews touched on their first transition within school, but the in-school transition was not an area of particular focus of the study. The results were unexpected. With five of the children, advanced language was their area of strength identified at that time. Such a domain would be viewed as 'schoolhouse giftedness' by Renzulli (2003) and Gagné (2003). As such it could be expected that these children's needs would be addressed capably in school. In none of the case studies was appropriate challenge apparent.

What is significant is that all parents did seek help outside the school system at this stage for their children. They felt their children's needs were not being addressed. The catalyst was the children's reactions at home to their schooling experiences – of boredom and frustration with their learning, or lack of it. This manifested itself with temper tantrums, threats of running away from school, and in one case even threats of suicide. All this at seven!

The key contributing factor appeared to have been the lack of intellectual challenge. This was impacting children's self concept, self esteem and certainly negatively influencing patterns of behaviour which could lead to underachievement. Considering the earlier definitions of transition, it was apparent that the children could meet the needs of their new environments, but they couldn't satisfy their own learning needs. The children were encountering significant barriers to becoming a fully established member of the new learning communities in which they were placed.

It was also not surprising that the teachers did not understand the intensity of the children's response in their home environment, as the children didn't necessarily present this profile in the school settings. This pattern, described by Nicky Fraser as 'chameleon behaviour' (Fraser, 2004, p506) would not be unusual with gifted children (Silverman, 2000).

For parents the earlier position of trust turned to disillusionment with teachers and schools. Feeling unsupported in school, parents became proactive about seeking help beyond the school. Once again, such a response is not unusual for parents, as they feel abandoned and isolated (Fraser, 2004).

Chance as a factor: So what were the chances of the establishment of reciprocal, respectful relationships between parents and teachers? In only two situations of the possible ten, did the parents feel that their voices, and those of their children, were heard and acknowledged by the teacher concerned. This again depended on chance factors, and in particular, the disposition and the commitment of the individual teacher.

Teachers and programmes in school are seen by Gagné (1999) as being environmental catalysts in developing giftedness into talent. His more recent model (Gagné, 2003) categorises chance as a causal component. Indeed the chance factor - of being identified as gifted, of being with a teacher who has understanding of gifted children's needs, and provides a programme which matches their ability - in these case studies was very prominent.

I would argue that by taking such chances with our gifted children, that we are placing our gifted young children at risk.

How do we improve the odds?

It would appear that having a common understanding of the word 'gifted' would be an important starting point, for all parties – teachers and parents. This would require sharing the knowledge of the needs of gifted children, and professional development for teachers. It would be beneficial if the communication between all parties were improved – between early childhood teachers and parents, between school teachers and parents, and between early childhood sector and schools. This latter relationship would require an appreciation of the philosophy and practices of the other sector. It would also require common understanding of any information passed to the school. In this way we could improve the chances that the teachers would

- recognize the advanced nature of the children's development,
- work to provide experiences which challenge the children,
- share the information that would allow for continuity of provision at the appropriate level,
- and develop individual plans for gifted children.

To further improve the odds that the children will be provided with 'just right' challenges, there needs to be improved communication with parents, which acknowledges

- parental knowledge and expertise about their children
- parents' need for understanding and an empathetic ear
- and the contribution parents can make to the ongoing development of their children.

This may require significant shifts in power relationships as teachers accept the parent voice without feeling their professional identity is threatened (Hughes, 2003). Adequate time for dialogue and suitable places for this to happen would need to be considered (Peters, 2004)

'Just right' challenges would be those, as the children advised, which would 'stretch their brains', and provide the intellectual stimulation they needed. This would provide 'equity of challenge', which Winstanley (2004, p80) believes is a moral responsibility for teachers

However support for teachers is also needed:

- in further professional development
- with further advisory support in schools
- with establishment of school wide policies
- with additional teacher-aide staff to work with programmes involving gifted children

In this way teachers could provide 'potentiating classrooms', ones that are invitational, where co-operation through open sharing of information provides a unified and responsive approach. Such an approach would involve children and families in taking responsibility and actively stretching and developing dispositions to learning (Claxton & Carr, 2004, p95). Through such collaboration, there would be a better chance that programmes are matched to the intellectual needs of gifted children, and provide the level of challenge they are seeking. The odds will be better for the development of positive self esteem, and patterns for future learning to be established. The odds will be better for the children to become fully established members of their school community, and so successfully transition from one environment to the next.

Leaving anything to chance is a gamble. But should gifted children have to face their future education with this element of risk? Should their future be left to chance, when there are ways to improve the odds?

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NURTURING OUR GIFTED CULTURE – WHAT IS WORKING AND WHAT IS NOT?

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ABSTRACT

This paper presents the findings of recent New Zealand research (2005) funded by the Ministry of Education, relating to the first round (2003 – 2005) of Talent Development Initiative projects.

One featured outcome of the report is the identification of the paradoxical relationship between strengths and weakness in the implementation of gifted programmes, and the significance of developing a school culture that supports differentiation. The need for transparency in defining the roles of those involved in these programmes and the importance of on-going communication between projects and administrators of projects are also included in this paper.

It is important to note, that this paper reflects a snapshot of gifted education that pertains to a specific time period. Any opinions expressed are those of the researcher and are not necessarily those of the Ministry of Education.

BACKGROUND TO THE RESEARCH

In 2002, the New Zealand Government released a policy statement outlining Ministry of Education's (the Ministry) guidelines for meeting the needs of New Zealand's gifted and talented learners (Mallard, 2002). Included in this statement was a funding pool available for a range of diverse programmes provided by community and school-based organisations focused on improving outcomes for gifted and talented learners (Mallard, 2002). Seventeen projects were selected for funding including primary and secondary schools, kura kaupapa Māori, community groups and national organisations. Following their selection, each project was allocated a mentor and an adviser from various locations throughout the country. Mentors and advisers included both academic and advisory staff, and classroom teachers. After project commencement, project staff were encouraged to contribute to a designated website to share information. The original request for proposals (RFP) promised participants on-going professional development.

In 2005, the Ministry called for proposals for a paper that would explore "the processes for the selection of, contracting of and support for the Talent Development Initiatives (TDI) contracted from 2003-6 under the gifted and talented contestable funding pool" (Rutherford, 2005, p1). A Victoria University research team comprising Luanna Meyer (Research Professor) and Jenny Horsley (Senior Lecturer, Professional Studies) prepared a proposal with two main aims:

- To evaluate processes surrounding the contracting of groups through the gifted and talented contestable funding pool
- To make recommendations as to processes surrounding the 2006-8 contestable funding pool.

Following approval from the Victoria University Human Ethics committee and in consultation with the Ministry a project was designed that invited participation from all seventeen TDI projects. The directors of each of the TDI groups, in addition to School Support Advisors, project mentors, selection panel members, members of the advisory group, the National Co-ordinator and project teachers were invited to complete a questionnaire designed to elicit information relating to TDI processes. In addition, documents including Milestone Reports, the original selection criteria and calls for proposals, hui agenda and the working party report (2001) were analysed and coded to assist the researchers to identify themes. The questionnaires were initially analysed by Research Assistant Judy Li who used the Statistical Package for Social Science (SPSS), a computer programme for collating data.

Questionnaire responses indicated higher returns from project directors and teachers with this return rate being 65%. The return rate for the remaining participants was 27.5%, with an overall return rate of 40%. Questionnaire respondents were invited to participate in interviews. Those respondents selected were interviewed using semi-structured interview schedules. Evidence was triangulated to provide rigour to the findings.

FINDINGS

The initial findings of this research were reported to the Ministry in December 2005. Further reflection and investigation into aspects of these findings has led to the formulation of 'Ten Principles for Gifted and Talented Programme Success' – a taxonomy that includes participant recommendations and research exploration highlighting factors that either facilitated success in first round projects or were deemed to have the potential to be important aspects of project success, if developed further. These principles are arranged in Table 1 (Appendix 1) in two groups: those that have theoretical implications and those that have implications for administrators of gifted and talented projects.

PRINCIPLES WITH THEORETICAL IMPLICATIONS

Principle # 1: Establish mentor/mentee relationship based on sound practice and models of mentorship. An area that drew a great deal of participant feedback was that of Mentoring. Achinstein and Athanases (2006) describe the origins of the term 'mentor' as being derived from a character in Homer's *Odyssey* who educated and supported Telemachus while his father was away, thus providing wise guidance to his protégé. They define modern teacher to teacher mentoring as "…a central strategy of many induction programmes, which pairs the novice with an expert veteran teacher focused on supporting the novice's professional development." (Achinstein & Athanases, 2006, p6). This idea in which a teacher is supported or scaffolded into a role seemed desired by many of those participating in first round projects, with the mentoring provided by advisers and school support staff. In spite of this, feedback suggests that this was a role fraught for both mentor and mentee due to a number of factors that impacted on success. These factors included a lack of definition of either role, something

not uncommon in mentoring situations (Feiman-Nemser, Schwille, Carver and Yusko, 1999). In this New Zealand research and consistent with the findings of Feiman-Newser et al (1999) and Achinstein and Achinstein (2006), it appears that one of the causal factors was the mis-conception that mentors come ready made. Coupled with this misconception were geographical incompatibility and an absence of funding to bridge the gap in addition to a lack of philosophical alignment of design between the assigned mentor and mentee. The establishment of projects *prior* to the appointment of mentors was also identified as a causal factor in creating tension within these relationships. This final point highlights the fact that mentors were *assigned* rather than self nominated or selected by those receiving the mentoring. It would seem that allowing the participants the right of veto if they did not wish to work with their designated mentor or mentee, could have assisted the formation of these roles.

It was evident from participant interviews that there was a reciprocated willingness for these relationships to happen and that many of those involved in the first round of projects would like this mentor/mentee relationship to be developed in the second and subsequent round of projects. For this to occur, it seems important that a model of mentor/mentee relationship is in place *prior* to selection of mentors for new projects and that, as Feiman-Newser et al (1999), suggest, it should not be assumed that mentors come 'ready made'. The participant recommendation that they be equally involved in selection of mentors and that the mentors themselves have input in to the project(s) they assist, also seems a key element in facilitating success in this relationship

Principle # 2: Communication with and between projects needs to include not only ease of access but also cultural considerations. It was evident that project respondents valued time spent with participants of other projects. One anticipated form of communication was the concept of an on-line site where resources could be shared between projects. Although the establishment of an on-line community did not achieve anticipated success, participants felt that this form of on-line communication could be possible through an established site (TKI) by utilising this already recognised forum for educators. In this first round of projects, there was an expectation that project participants would write for publication on the on-line site. It appears that this is an area that did not achieve its full potential, and recommendations from participants include the suggestion that if this expectation remains for future projects, that participants be scaffolded or supported into writing for publication. One evident link here could be the receiving of support from a mentor, if this role has been established.

Hui was seen as another means of communication. Most participants found hui useful, especially as a time to 'network'. However, recommendations from participants included the need to consider meeting the cultural needs of Māori and although there was specific time set aside for this at hui, with guest presenters/facilitators who considered Māori and Pasifika perspectives on giftedness, it seems that some participants would have liked a specific forum for them to korero. These participants suggest making provision for those who wish to meet and discuss the Māori philosophy of giftedness. It is perhaps important to remember, that with the turnover of staff in some projects, it is possible that some of those who were able to avail themselves of cultural opportunities at one hui, may not have been present at another and may have missed this forum for those reasons.

One outcome of the Ministry Te Kauhua project (2005) that aims to address Māori student achievement in mainstream schools was that "…the hui participants have themselves become a co-operative and collaborative learning community" (Ministry, 2005, para. 3). This comment describes not a TDI hui, but a hui for participants in the Te Kauhua project. In this Te Kauhua project, participants assumed the roles of action researchers within their schools. This statement that hui participants became members of the co-operative and collaborative learning community (Ministry, 2005) could align with goals for future TDI project participants. TDI Hui could become the catalyst for the formation of a learning community that shares successful culturally inclusive practices for teaching gifted Māori students. In a paper that discusses the culturally responsive environment of gifted Māori learners, Bevan-Brown (2005) writes "At the heart of successful education for all Maori students is the provision of a culturally responsive environment" (p152). It is interesting to consider this statement with the earlier findings of Riley Bevan-Brown, Bicknell, Carroll-Lind and Kearney (2004) who reported that

> *"Gifted and talented students from under-represented groups, especially Māori students and those of other ethnic minority groups, are not being readily identified in New Zealand schools, and culturally appropriate provisions are not being planned, implemented or evaluated."* (p3)

Both of these reports (Bevan-Brown, 2005; Riley et al, 2004) emphasize the importance of addressing the needs of the under-represented groups, specifically Māori. When reviewing school based provisions for gifted and talented students Riley et al (2004) also found that "… the least frequent [provisions were] for students with culture-specific abilities and qualities." (p189). Riley et al's (2004) research coupled with Bevan-Brown's (2005) research, highlight the need for gifted programmes that have considered and made appropriate cultural provisions. Participants' recommendations that provision be made for TDI stakeholders to gather to discuss and share Māori philosophies of giftedness are obviously an important outcome of this research and align with the findings of Riley et al (2004) in helping to create an environment in which not only philosophies are shared, but also practices for meeting the needs of this underrepresented group of gifted learners. Riley et al (2004) identified national concerns about the inability of teachers to provide for culturally gifted students. Provision ought to be made for those project staff that are skilled in providing culturally appropriate practices to have access to a format for disseminating this information to other teachers. In addition the inclusion of a condition in every contract that requires a description of the ways in which the importance of cultural diversity will be met, will help to address this area of national concern.

Principle # 3: Think long-term: plan for your project's sustainability at its inception. The original RFP purpose stated that "These schools, kura kaupapa Māori and organisations will need in this period to develop a plan for supporting programmes without funding after 2005" (MOE, 2002, p2). Despite the fact the need to consider and plan for programme support beyond 2005 was written into the original RFP and addressed in Milestone reporting, this forward planning became a current and very real issue for the first round projects nearing the end of their project tenure. One participant described the project timeframe as "unrealistic" and another proposed that the funding be extended. It appeared that many projects had recognised the importance of continuing the momentum they had generated, but failed to put in place strategies to ensure their continuation.

As analysis of milestone data suggests TDI project sustainability appears to include several factors. These include, sustainability of resources, personnel, marketing sustainability and professional development sustainability. To consider these aspects further, we could classify them as factors that require financial support and factors which require systems to support people. Each of the previously mentioned factors may contain elements that require financial support, but there is also a need to ensure that the 'people' structures are present in order to achieve sustainability. Recommendations for 'people structure' sustainability are another outcome of the Te Kauhua (Phase 2) project. In a report to the Ministry (2005) Bull, the Project Co-director, stated that in the second year and final year of the project, sustainability was a key factor in project schools' long-term planning. She lists seven recommendations to assist with sustainability. Although Te Kauhua was not a TDI project, it is possible that some of the ideas could be used as a starter pool to generate other ideas for sustainability of gifted and talented projects. This idea that participants 'pool' their thoughts on sustainability originated from a TDI participant who felt that their project would have benefited from this additional input. Undoubtedly, reasons for projects not continuing vary, but some participant comments suggest that for some TDI projects this step involving long-term planning for multi-pronged sustainability may have been considered too difficult to achieve and ultimately led to these projects being unable to continue beyond the period of Ministry funding.

The funding of gifted programmes is perhaps one area where New Zealand needs to consider overseas models. The Jacob Javits Gifted and Talented Students Act is credited with the formation of the National Research Center on the Gifted and Talented (Reis, 2004). This institute has received sixteen years of Javits funding. (S Vahidi, pers. comm 10.05.06). Sustainability of this gifted project, must certainly have been made more achievable through this oft available grant. It is also reasonable to assume that New Zealand's gifted and talented projects may need to look beyond the 'gifted' context, and perhaps even outside of an educational setting to gain the assistance they need to become financially sustainable.

Principle # 4: Involve your Principal in your project. Rion-Gadbury (2005) suggests that "a school-wide, shared vision can light the path to a positive school climate" (p14). She explains that inclusive methods of sharing a vision built upon "… the knowledge and expertise the teachers possess and stimulates the ever-so-elusive "buy-in" necessary …" (p14). This theme aligns with the research of Liethwood and Riehl (2003) who found that educational leaders "help to create shared meanings and understanding to support the school vision" (p5). Rion-Gadbury (2005) explains, a principal needs to *share* his or her vision and find ways to *sell* it to participants [staff] or have them *buy* into it. This notion is consistent with the findings of this TDI research with some participants claiming that schools or projects, in which the principal led the vision, were able to obtain staff buy-in and commitment for the scheme, which in turn lead to the generation of positive outcomes. This closely matches one principal's statement where he or she acknowledged the high level of commitment amongst (his or her) staff members, inferring that this commitment had lead to a positive school culture in which differentiation played a major role. The consideration of a triadic relationship between these three components: [whole] staff commitment, school culture and principal leadership, may well be important in identifying factors that facilitate staff buy-in to gifted and talented projects, with emphasis on the role of the principal in supporting and acknowledging this climate. Overseas research (Crane, 2002; Leithwood & Riehl, 2003) suggests that in working environments where people matter to an organisation's success, there is a significant relationship between leadership behaviour and the performance of individuals. Liethwood and Riehl (2003) state that it is [school] leaders that establish the conditions that enable others to be effective. This latter statement appeared consistent with some participants' comments and outcomes of this research.

Principle # 5: Aim to achieve total staff 'buy–in'. It was clear that the Talent Development Initiative participants valued the opportunity Ministry funding has provided enabling them to develop and implement programmes for gifted students. Paradoxically, a particular strength of the project has also been its weakness: staff. Highly valued are the deliverers of gifted content (School Support Services; Advisors; National TDI Coordinator) but problematic is the tension created through attempts to achieve whole staff 'buy-in' to the concept of differentiation.

Staff awareness of the need for absolute buy-in elicited suggestions that included the development of a whole school policy which is consistent with the writing of Rion-Gadbury (2005) in her American research. However, the difficulty of achieving this buy-in was noted in several projects evidenced by a negative attitude and a lack of motivation in those teachers who were not part of the project but were in the same institution. Additional problems included tensions in relationships between some gifted (withdrawal) centres and regular classrooms, and gaps in teacher knowledge for a number of TDI projects. Another difficulty arose when it was realised that some teachers whose gifted students were participating in withdrawal programmes, were expecting those students to complete regular class work on their return, in addition to the work they had undertaken during their enrichment class. One project response to this expectation was to develop a system whereby the principal of the school sighted and signed a form ensuring the child had a specific number of hours of in-class time each week for his or her gifted studies. This was a successful solution and is one example of the pivotal role a principal can play in providing effective programming for gifted students.

Principle # 6: Involve your whole community in your project. It seemed that although community involvement was valued, some projects found it a challenge to achieve. Variations in the reported involvement of local communities occurred in the ways in which this participation was recorded by TDI individual groups and the ways in which the communities were invited to participate. Some projects commented on the challenges of involving communities and used a variety of approaches in their attempt to overcome these. One of these solutions was to invite whanau and other members of the community to participate in professional development relating to the TDI project. Another project director involved the community in student mentoring schemes, actively door knocking to gain names for the project's mentor register. Many of these mentoring relationships in this particular 'street network' were established between former and current participants in this TDI project. A project facilitator reported great success in this mentor-student network, with one previously underachieving gifted student making huge gains in motivation, self-efficacy and achievement that were directly attributed to this mentoring relationship.

In addition to the professional development and mentoring, other opportunities for parent or whanau involvement included invitations to view student work. Transmitting knowledge about the programmes through local and community media were also an important outcome of these programmes.

Principle # 7: Develop a *whole school culture* that supports differentiation. Where projects were part of schools, it appeared that one of the elements that emerged as a key factor in TDI success was the development of a school culture that supported differentiation. It seemed that in this climate where teachers felt supported by other staff members, the community and the principals, TDI programmes were able to flourish. One participant stated that the culture that had developed within their school had led to the nurturing and fostering of talent and difference within the [whole] school, which had ultimately increased the self confidence of these gifted and talented students.

Many participant comments were positive and reflected the value seen in each of these previously mentioned components: whole staff commitment, school culture and principal leadership that appeared to facilitate the creation of a school culture that supported differentiation. Further research into the factors that made up this school culture, may well have revealed each of the principles described in this paper, and the role these principles have played in developing a school wide ethos that supports differentiated programming for gifted and talented students.

PRINCIPLES WITH IMPLICATIONS FOR MINISTRY OF EDUCATION ADMINISTRATION

Principle # 8: Ensure that application guidelines and reporting expectations are clear and specific. As with much of the data collated, responses varied depending on the ease with which the task was viewed. Participant responses to completing the original RFP suggested that most felt the process to be useful with a smaller number indicating their dissatisfaction. However, it was suggested that some applicants required support in the completion process and that this ought to be an on-going offer when each round of funding was advertised. What this research was unable to determine, was who it was that the participants thought ought to provide this support, whether they felt it was the responsibility of the Ministry or mentors of one kind or another. One participant suggested that the Te Kete Ipurangi – The Online Learning Centre (TKI) site was very useful in the latest (2006 – 2008) call for proposals. Additional feedback suggested that the RFP's in the latest round of TDI's were much clearer than the initial round. Participants also called for the selection criteria to be transparent and made available to applicants.

The requirement of the completion of Milestone Reports was found by most respondents to be useful and supportive. However, an overwhelming 100% of project respondents claimed that this reporting when completed orally, provided instant feedback that was highly valued by participants. There was an additional suggestion that written milestone reporting be completed on a template.

Principle # 9: Payment schedules for projects need to be developed following consultation and on a case by case basis. Although most participants felt that project payment arrangements were adequate, a small percentage had concern about the implications of late payment on their schools or institutions. Concerns generally related to smaller schools that were unable to carry the expenses of the project without 'up front' payment by the Ministry. In some cases, school budgets were stretched to meet this additional demand. It seems important therefore that projects that are funded receive their allocation on a pre-arranged basis. This schedule would benefit affected projects if it was devised and drawn up in consultation with those receiving the funds and those responsible for allocating them.

Principle # 10: Ensure project staff are suitably qualified and continue to receive appropriate on-going professional development. As participant data revealed, many of those people who provided input to this research were themselves skilled in the education of New Zealand's gifted talented students. Similarly, having TDI project staff who held or gained qualifications in gifted education was viewed as advantageous and a means of improving the quality of content delivery. In one project, several members of staff gained 'gifted' qualifications at the Masterate level. Riley et al (2004) stated that schools recognise the need for staff to receive "ongoing school wide professional development" (p3) and extended that notion to include all staff, not only those teaching in TDI projects. This idea of school wide professional development has already been introduced in this paper, under the heading "Principle # 5: Aim to achieve total staff 'buy–in.' In some projects, participants claimed staff lack of qualifications and knowledge pertaining to giftedness impacted on the day to day running of programmes. Evidently there is an urgent need for staff to gain this professional knowledge. In December 2003 the Ministry advised that from 2005, National Administration Guideline NAG) (iii)c would change to include specific reference to gifted students. It now reads:

> *"From Term 1, 2005 it will be mandatory for all state and state-integrated schools to demonstrate how they are meeting the needs of their gifted and talented learners, as they are currently required to do for students who are not achieving, who are at risk of not achieving, and who have special needs."*

(http://www.minedu.govt.nz/index.cfm?layout=document&documentid=8187&data=l)

It seems reasonable therefore, to conclude that knowledge of appropriate provisions for gifted and talented students could/should become part of every school in New Zealand, not only those involved in TDI projects. Professional development needs to be made available to *all* New Zealand teaching staff if the knowledge is not already evident. Riley et al (2004) cited case studies in which schools identify professional development opportunities as "critical factors in developing effective practices" (p266). In their summary, the researchers cite funding of and access to professional development as barriers (p3) to schools receiving this assistance.

SUMMARY

Arguably, the most frequently occurring theme to emerge from this research is the need for on-going professional development. Although it appears that staff have been a particular strength of the project, in some cases, they have also been its weakness with participants identifying a need for professional development. The need for professional development is also identified in several other principles including staff buy-in, project sustainability, principal buy-in, and in developing a whole school culture that supports differentiation. An opportunity to discuss Māori concepts of giftedness is also an important theme, as is the significance of enabling participants to communicate between projects and with a Mentor, with structure to scaffold both mentor and mentee.

Collective data records project successes. Coupled with these successes have been challenges and this paper contains participant recommendations and researched conclusions that might help ameliorate or overcome the effect of project challenges. By no means the only solutions to the problems or tensions identified, is it hoped that these recommendations may lead to improved outcomes and easier passage for not only the incumbent round of TDI projects but also other gifted and talented programme initiatives.

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Principle	Description	Implications
PRINCIPLES WITH THEORETICAL IMPLICATIONS		
Establish mentor/mentee relationship based on sound practice and models of mentorship.	Reliance on mentoring requires pre-establishment of a mentoring model as well as procedures for matching mentor/mentee pairs.	Professional development could include training in both of these roles.
Communication with and between projects needs to include not only ease of access but also cultural considerations.	Project participants valued time spent with participants from other projects. Hui was useful for networking. Some participants wishing to see greater opportunities to discuss cultural conceptions of giftedness.	Te Kete Ipurangi (TKI) be used as a form of communication between projects; hui provide opportunities to discuss cultural conceptions of giftedness.
Think long-term: plan for your project's sustainability at its inception.	Sustainability must be planned for, not assumed, and may require greater input from agencies skilled in this area.	Professional Development designed to support participants in implementing methods of substantiality.
Involve your Principal in your project	Those projects that had Principal support reported significant staff 'buy-in' and commitment.	School wide professional development that includes the Principal.
Aim to achieve total staff 'buy–in'	Gaps in teacher knowledge, tensions between some withdrawal centres and regular classrooms and negative attitudes from some teachers not involved in projects made it difficult for some projects to achieve total staff "buy-in".	Professional development for *all* staff.
Involve your whole community in your project	Community involvement was valued but at times, it was challenging for some projects to achieve.	Involve the community in professional development and use local media to generate community interest in the project's aims and achievements.
Develop a *whole school culture* that supports differentiation	For some projects this was seen as a key factor in project success.	The development of whole school policies that support differentiation.
PRINCIPLES WITH IMPLICATIONS FOR EDUCATIONAL ADMINISTRATRATORS		
Ensure that application guidelines and reporting expectations are clear and specific	Feedback on development work delivered orally is reported to be highly useful.	Follow up to oral interviews, could be written.
Payment schedules for projects need to be developed following consultation and on a case by case basis.	Although most projects reported adequate arrangements, some smaller schools expressed concern over the need to carry the project while awaiting payments.	Funding schedules consider payment schedules on a case by case basis. The completion of an early Milestone report (e.g. within two months of beginning) may also help this situation.
Ensure project staff are suitably qualified and continue to receive appropriate on-going professional development during the project	Suitably qualified staff were highly valued. Participants noted that project staff who lacked qualifications impacted on the programmes efficacy.	Project staff receive on-going professional development in the education of gifted and talented students.

Table 1: Ten Principles for Gifted and Talented Programme Success

THE BEST FIT: LEADING A GIFTED AND TALENTED PROGRAMME IN A LARGE STATE SECONDARY SCHOOL

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ABSTRACT

This paper will address the journey of a large New Zealand co-educational, state secondary school that has targeted a programme for their identified gifted and talented students. The programme has been in place since 2003 and draws from a large talent pool that recognises areas of giftedness, is informed by sound theory and is constantly evolving. A Learning Policy has been written to ensure theory becomes good practice and learning supersedes all other school functions. Policies for Gifted and Talented Education (GATE), Literacy, Correspondence Programmes and Individual Programmes are appendixed to the Learning Policy. Creative timetabling allows for the best fit for all students including our gifted and talented students.

PAPER

Otumoetai College is a state-funded, co-educational secondary school in Tauranga with a current roll of 1889 students. The philosophical ethos of the college up until the late 1990s was one primarily concerned with the implementation of learning programmes in mixed ability groupings intended to raise the performance of low achieving students. While new national assessment initiatives dominated teacher time, pedagogy had all but disappeared from teacher discussions. However, with the millennium rapidly approaching, some staff became increasingly vocal in expressing their concern about whether the college was fulfilling its responsibility in fostering learning opportunities for all students. What was needed was a major overhaul of the way learning was viewed in the college; an overhaul that would give teachers permission to explore how students learn and one that would allow for sustainable change with integrity in all classrooms. The consequent provision of professional development that created opportunities for staff to engage in teacher talk about learning, rather than assessment, has ensured the establishment of enriched learning environments for all students while galvanising the commitment of an increasing number of staff in providing tailored programmes that cater for the learning needs of the gifted and talented students within our community of learners.

Over the previous decade the college had placed a significant focus upon behaviour management and the learning needs of low achieving students. In 1999 the Learning Support Centre took the initiative and dropped Support from its title highlighting a broadening understanding of its role which would now include providing for gifted and talented students while also sharpening the college's educational vision. From the outset it was determined that if the college was serious in its commitment to catering for the learning needs of its gifted and talented students then change needed to be implemented within all classrooms. There was no sustainability in merely assembling gifted and talented students and allowing them to be "gifted only on Friday afternoons" nor was there any future in merely providing teachers with ready-made lessons that accommodated gifted learners. Instead what was needed was a commitment to a professional development programme that promoted teacher understanding of the theoretical underpinnings of gifted education while also creating opportunities for teachers to develop their own programmes based upon international research. Within this environment members of the newly named Learning Centre and staff representatives undertook an extensive exploration of the available literature in the field of gifted and talented education resulting in several participants attending in 2001 the Teaching and Learning Symposium hosted by Hamilton Boys' High School and the National Gifted and Talented Education (GATE) conference in Auckland. A significant paradigm shift by a small number of staff provided the momentum to drive forward. Their vision was fully supported by senior management to the extent that the following year a staff member was awarded a scholarship to Colorado to study the work of George Betts and the Autonomous Learner Model. In light of these professional development opportunities it become evident that there existed the need for high ability classes to be introduced and subsequently in 2002 following initial teacher training, enrichment classes were introduced representing 15-20% of the total talent pool (Renzulli, 1985) at both Year 9 and 10 across the subject areas of English, Mathematics, Science, Social Sciences, Music and Technology.

The Ministry of Education's 2003 rejection of the college's application to undertake a five year professional development programme for teachers in order to ensure the sustainability of gifted and talented programmes became an important catalyst in strengthening the college's commitment to its own professional development programme. The decision of management was to proceed independently. This determination resulted in the establishment of both a gifted and talented focus group and a literacy focus group to oversee development in these identified critical areas. Additional developments throughout 2003-4 included the establishment of a Learning Register that identifies the learning needs of a wide range of students including gifted and talented students and those "twice exceptional" (Betts, 1985 p.33.) There was also the development of cross curricular focus groups that targeted boys' achievement and Maori achievement. Furthermore, the development of the school-wide commitment to improving task design enabled 24 staff to attend GATE workshops facilitated by School Support Services, thereby ensuring ongoing training opportunities for teachers of enrichment classes. This practice continues today with all teachers of enrichment classes being required to undertake full training in this area while also accessing further support from the Learning Centre. This cross-curricular approach, while continuing to develop the staff talent pool, has also proved instrumental in promoting collegiality and teacher talk about learning. Continuing to develop the staff talent pool has also been the philosophy behind producing the model that has driven the college's subsequent professional development programme, most notably in 2006 with the establishment of cross curricular focus groups that are exploring the nature of the post modern learner and the need for instructional differentiation.

At the heart of Otumoetai College's commitment to its educational vision of meeting the learning needs of all students is its refusal to compromise. In any large state funded secondary school there exist a number of constraints that must be recognised and addressed but these cannot be permitted to prevent pedagogical discussions from occurring or from implementing practices grounded in recent research. At this time there were many external pressures such as the new national curriculum and assessment regime along with various Ministry initiatives. The college chose to buy in to those initiatives that focused on learning. Gifted and Talented education and Literacy were selected. Despite the large roll with its accompanying timetable demands and initial staff conservatism, the approach to learning continued as a school-wide drive for BETTER LEARNING FOR ALL (School Goal 2004/2005) that incorporates task design and differentiation within the language of learning.

Despite the doubters and detractors college management working with the Learning Centre drove forward its own professional development programme for all teachers of enrichment classes in English, Mathematics, Social Sciences, Science, Music, Technology and Elite Sports in addition to the GATE workshops and frequent visits from School Support Services. This afforded these teachers the opportunity to learn for themselves and in so doing strengthened individual commitment to the concept of a learning continuum and differentiated task design. It also ensured that over the two year time period those supporting the new school philosophy presented an informed and united voice. The taxonomies of Bloom (1956), Kaplan (1986), and Williams' Cognitive-Affective Interaction Model (1996) were introduced in conjunction with explorations of Gardner's Theory of Multiple Intelligences (1983) with the intention of providing our gifted and talented learners higher order thinking opportunities within an environment that encourages choice, fosters risk taking, provides challenge and develops opportunities for creativity. Teacher understandings of acceleration, underachievement and perfectionism, along with the specific emotional needs of high achievers were also addressed in order to maintain an holistic approach towards meeting the needs of our gifted and talented learners.

The timetable philosophy of providing the best structure for learning drove the construction of a new internal framework. The cry that it was all "too hard" was never accepted. The new framework allows all Year 9 students to sample every subject in the required curriculum areas. There is no established hierarchy of subjects, and subjects share as even a division of time as possible. In Year 10 the new timetable structure recognises the provision of optional six month courses, by keeping as many subject options open for as long as possible while at the same time allowing for an element of choice. The division of time between subjects remains as even as possible. Year 9 and 10 groups of 400-450 students are divided into three clusters of 130-150 students based on an even spread of ability. Each cluster then moves through the Year 9 and 10 programme as a single entity and is divided by each Faculty Leader according to individual test scores, aptitudes and recommendations in each subject. The four or five form classes in each cluster are for administrative purposes only. Such an approach gives ownership to each Faculty with the flexibility of allowing for a student to be changed in one subject but remain in other classes. The responsibility is given to each faculty to divide the cluster into either one enrichment class and three mixed ability groups or into four ranked ability or mixed ability groups. Consultation with the Learning Centre is essential for careful placement. Enrichment classes are instructed to the curriculum level that corresponds to their ability. In 2005, and again in 2006, Year Ten Mathematics includes one accelerated enrichment class that completes the level 6 Mathematics curriculum in order to advance to curriculum level 7 in Year 11 being assessed to level 2 of the National Qualification Framework (NQF). In Year 10 there is no assessment to the NQF external achievement standards with the intention of encouraging creative teaching that is not bound by an external assessment regime.

The writing of the school's GATE policy (ratified late 2003) was the result of 11 drafts. The length of time taken in fine-tuning this document is indicative of the paradigm shifts both in understanding of the specific needs of gifted and talented learners as well as the acquisition of new knowledge by Board members, parent representatives and an increasing number of staff. The GATE policy recognises the Ministry of Education's (2000) definition of gifted and talented and adopts both a broad and inclusive understanding of giftedness in developing its programmes throughout the school. The document is underpinned by the theories of Renzulli and Reis (1985) and Betts (1985). Renzulli and Reis' (1985) concept of gifted learners draws from a talent pool that recognises the "interaction between three basic clusters of human traits: above average ability, a high level of task commitment and a high level of creativity" (Ministry of Education: Gifted and Talented Learners p.14). Betts' (1985) Autonomous Learner Model aims at giving students "the content, process and product know-how that enables them to take responsibility for developing, implementing and evaluating their own learning" (Ministry of Education: Gifted and Talented Learners, p.51). The goal of this model is "to facilitate and develop the total learner." (Betts and Kercher, 1999, p. 34)

Formalising a gifted and talented policy exposed a need for learning-centred leadership and became the catalyst for moving on and writing further policies that specifically relate to learning. Policy writing served to inform and involve the Board in the ethos of the new pedagogy and enshrine the vision for all concerned. A literacy policy was written to focus staff on raising literacy standards and also cementing the language of learning across the school. A policy relating to Otumoetai College students' access to Correspondence School Programmes and outside providers ensured availability of subjects not taught at the College. It also ensured the provision of an extra subject as well as providing a pathway to a subject at a level higher than the other subjects being studied because the timetable could not accommodate. An Individual Programme Policy was written to ensure that no blocks were put in the way of any student's individual programme. Often this may mean a gap of one subject on a student's timetable to enable time spent in the Learning Centre for consolidation of subject material with skilled support staff. Understanding of the learning process continued to grow as the policies were written and ultimately the writing of a Learning Policy encapsulated the place of learning within Otumoetai College. The GATE, Literacy, Correspondence School and Individual Programme policies became appendices to the Learning Policy which recognized the college's conceptualised learning framework, its learning continuum and its commitment to the implementation of best pedagogical practice in classrooms. The policy commits to professional development and gives special emphasis to the development of profound learning, to meaning, authenticity, creativity and interdependence. It seeks to ground staff actions in sound pedagogy and to ensure that meaningful learning remains super-ordinate to curriculum assessment and behavioural management.

Identification of students for the gifted and talented programme began as a data-gathering process and as understanding increased, the process has expanded into a multi-faceted approach. McAlpine (1996, p. 63) describes identification as a mediation between "the responsive environment approach and the formal data gathering approach." While Otumoetai College is secure in the integrity of data that is gathered

on each cohort, it recognises that there is ongoing work to be done in regard to establishing a responsive environment that relies on a team approach to identification and is "unobtrusive and naturally embedded into sound everyday learning and teaching." (McAlpine, 1996, p. 67). Extensive information from contributing schools is placed alongside Centre for Educational Measurement (CEM) data and enables Deans and Faculty Leaders to rank students according to cognitive ability. Consultation with contributing schools forms an integral part of this process as does the request for parent input. Early in the school year Progress and Achievement Testing confirms class placement. While initial testing regimes provide baseline data for each student it is acknowledged that key factors of parent, student and teacher input need to play a greater part in the process in order to find "the best fit" for students with high abilities. As McAlpine (1996, p.67) points out "unobtrusive identification based on challenging learning" along with "open communication between parents, caregivers, students, teachers …" and "a team approach" encourage a climate of awareness that is "constantly on the alert for the emergence of special abilities."

Individual faculties in liaison with information provided by the Learning Centre are responsible for identifying students that demonstrate the potential of task commitment, above average ability and creativity (Renzulli and Reis, 1985) and placing them in specific subject classes that practise both curriculum compaction and differentiation within a higher cognitive framework. At Years 9 and 10 identified students are placed in enrichment classes across each of the subject areas of English, Mathematics, Science, Social Science, Music and Technology. The label of enrichment, which was first used in the school in 2002, is now viewed as somewhat misleading as enrichment is often interpreted as meaning "just more work, sometimes more of the same work." (Clark, 1988, p.202) The title enrichment was a consensus decision and reflected staff understandings at that time. It did however serve to encapsulate the desire for broad cognitive development rather than subject acceleration at the expense of understanding. Townsend (2000) explains that 'acceleration refers to instruction which matches the readiness and needs of the gifted child most closely with the curriculum' (p. 290). Accordingly acceleration is implemented in the college in a number of its many guises throughout the school including subject-specific acceleration, selected New Zealand Qualification Authority (NZQA) acceleration, curriculum compacting, differentiation and individualised curriculum. Staff now understand enrichment to be the right of every student, and interpret it as broad based educational experiences that are not necessarily at a more rapid pace or at a higher level. Staff are therefore currently considering a change in terminology to better describe the programme.

Southern and Jones (1991) document the fact that a variety of acceleration options generate increased learner efficiency and effectiveness as students learn better in an environment that recognises their ability. By placing students in an accelerated environment, it is reasoned that they will benefit from the interaction with peers who share like minded intellectual interests. Townsend's (2000) summary of the advantages of acceleration reveal similar intellectual benefits of increased academic motivation, a greater variety of school goals, a decrease in behavioural problems and notably, an escape from boredom and intellectual frustration.

Evidence of these acceleration options within the enrichment band are seen in all faculty areas. The philosophy in English enrichment classes focuses on broadening students' analytical skills through challenging texts and the self-selection of literature. Recognising that effective curriculum delivery requires more than advanced content alone to cater for the learning needs of gifted students, the department has invested considerable time in the development of assignments that promote greater choice and encourage creativity including 'Hooked on Books' at Year 9 which incorporates Bloom's Taxonomy and Gardner's Multiple Intelligences and 'Novel Thinking' at Year 10, a thematic unit based upon Williams' Cognitive-Affective Interaction Model that encourages students to explore the relationship held between literature and its role in society. The introduction of these differentiated models provides students with the opportunity to engage in higher-order thinking while allowing students to take ownership in the selection of product outcomes. Two examples of facilitated research tasks in Year 9 Social Studies are based around the theme of Chocolate where students have the choice of analyzing the geography, economics, sociology or history behind this resource, and the geography of the Lord of the Rings where students create their own tour through Middle Earth in order to destroy the ring. Students are required to analyse landscapes in order to problem solve and overcome various challenges encountered along the way.

In the Technology Faculty gifted students are selected for their potential to evaluate solutions to client based problems before choosing the direction of their own project outcomes. Te Reo allows for advanced language studies to National Certificate of Educational Achievement (NCEA) internal standards. Year 9 enrichment Music classes are comprised of students with previous musical expertise in theory and performance. Because of this, emphasis is placed on solo and group performance, composition and skill building in both aural and score reading. Students are required to pick up a second/third instrument to develop their melodic, harmonic and rhythmic understanding and are encouraged to take part in various college musical groups. The pathway to Year 10 Music allows some students to be assessed in solo performance and/or composition to NCEA internal standards. In the Mathematics Faculty, the Year 9 and 10 enrichment courses aim to broaden the learning experiences of students through participation in a variety of problem solving tasks that reflect areas of individual interest. Student understanding is further enhanced through the writing of detailed instructions for complex co-ordinate pictures of their choice as well as through the narration of video they have compiled to demonstrate geometric concepts. Acceleration is an option for those who display giftedness in the field of Mathematics. (Refer Fig. 1)

While each department continues to accommodate the learning needs of all students including gifted and talented through quality task design, there is now genuine concern that the needs of our most able students are not being met. In 2005 the Advanced Learners' Group was established in recognition of the additional cognitive and affective needs of our most academically gifted students. Following the Autonomous Learner Model (ALM) developed by Betts (1992) students are introduced to the five dimensions required for the development of the autonomous learner: orientation, individual development, enrichment activities, seminars and participation in an in-depth study investigation. The programme provides an opportunity for like-minded students to meet regularly and engage in activities that demand higher order thinking skills while fostering an appreciation of the important roles that persistence, determination and task commitment play in the pursuit of successful and independent life-long learners. While the 2005 pilot was limited to only 24 Year 9 and 10 students, the 2006 programme includes 40 students who continue to research areas of passion and foster links with the community. In addition to developing the critical, creative and caring thinking skills first introduced in 2005, the 2006 programme allows for individual mentoring and the continuation of exploration into avenues of passion along with interaction with like-minded peers both at school and in the community.

While something akin to a pedagogical revolution has begun in the college there remains a great deal to do to ensure that the cognitive and affective needs of each of our gifted and talented students are fully met. In recognising the importance of differentiated programming that enables all learners to engage in high-order thinking exercises, individual faculties have become increasingly committed to their gifted and talented learners. As Barbara Clark **(**1988**)** reminds us "All kids deserve to learn something new every day, including the gifted." (p. 202) With this in mind, management has increased its commitment to the college's gifted community by allowing for the provision of additional staff hours in the Learning Centre in 2007 to oversee the implementation of individual programmes for all identified gifted students. Otumoetai College recognises that it has a professional responsibility to provide each and every one of its students including its gifted and talented with learning programmes that "best fit" both their cognitive and affective needs. Staff understanding of effective pedagogy remains the only assured way to guarantee this desired outcome. (Refer Fig. 2)

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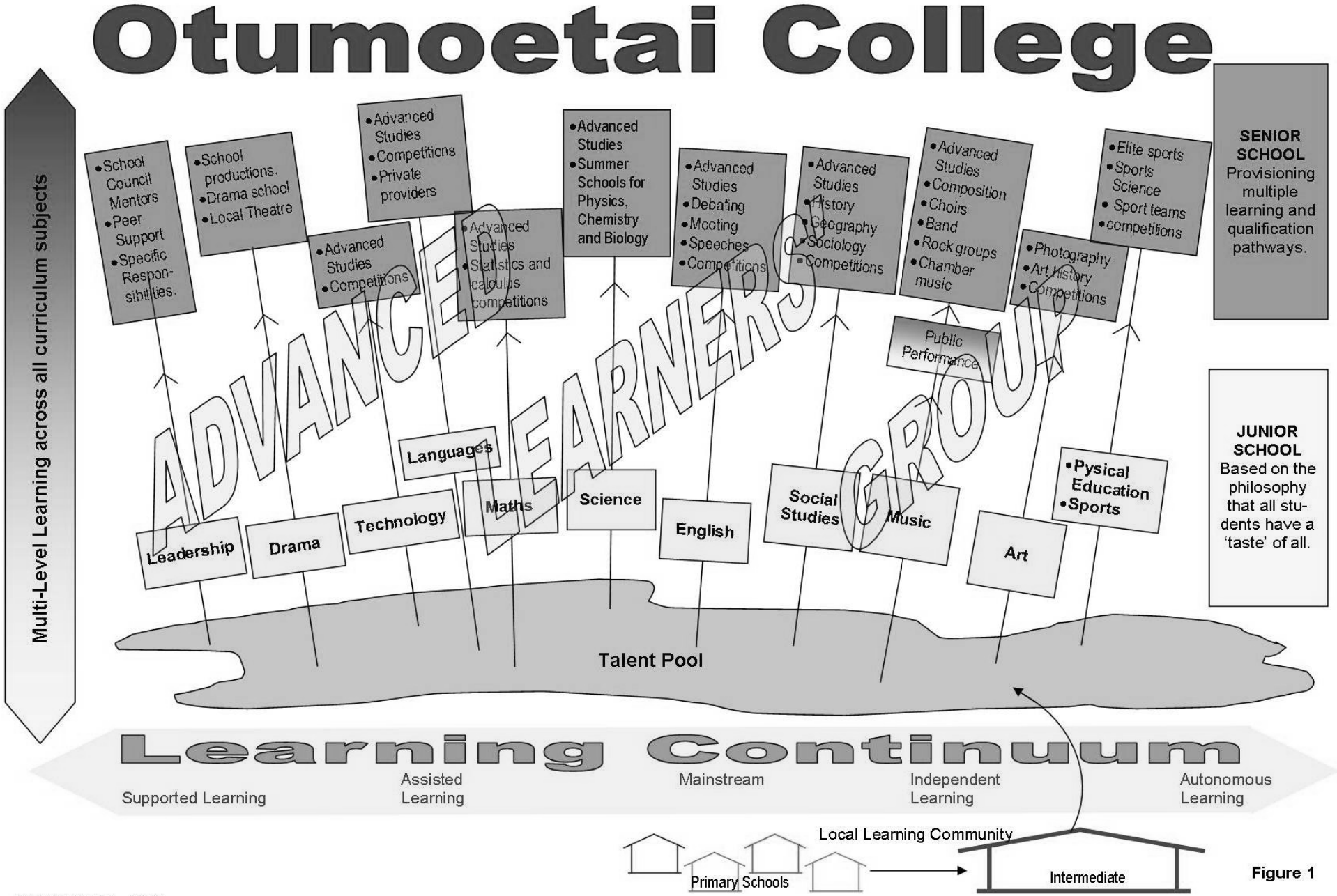
Otumoetai College
Multi-Level Learning across all curriculum subjects
•School Council Mentors •Peer Support •Specific Respon-sibilities.
•School productions. •Drama school •Local Theatre
•Advanced Studies •Competitions •Private providers
•Advanced Studies •Competitions
•Advanced Studies •Statistics and calculus competitions
•Advanced Studies •Summer Schools for Physics, Chemistry and Biology
•Advanced Studies •Debating •Mooting •Speeches •Competitions
•Advanced Studies •History •Geography •Sociology •Competitions
•Advanced Studies •Composition •Choirs •Band •Rock groups •Chamber music
•Photography •Art history •Competitions
•Elite sports •Sports Science • Sport teams •competitions
SENIOR SCHOOL Provisioning multiple learning and qualification pathways.
ADVANCED LEARNERS GROUP
Public Performance
Languages
Leadership
Drama
Technology
Maths
Science
English
Social Studies
Music
Art
•Pysical Education •Sports
JUNIOR SCHOOL Based on the philosophy that all students have a 'taste' of all.
Talent Pool
Learning Continuum
Supported Learning
Assisted Learning
Mainstream
Independent Learning
Autonomous Learning
Local Learning Community
Primary Schools
Intermediate

Figure 1

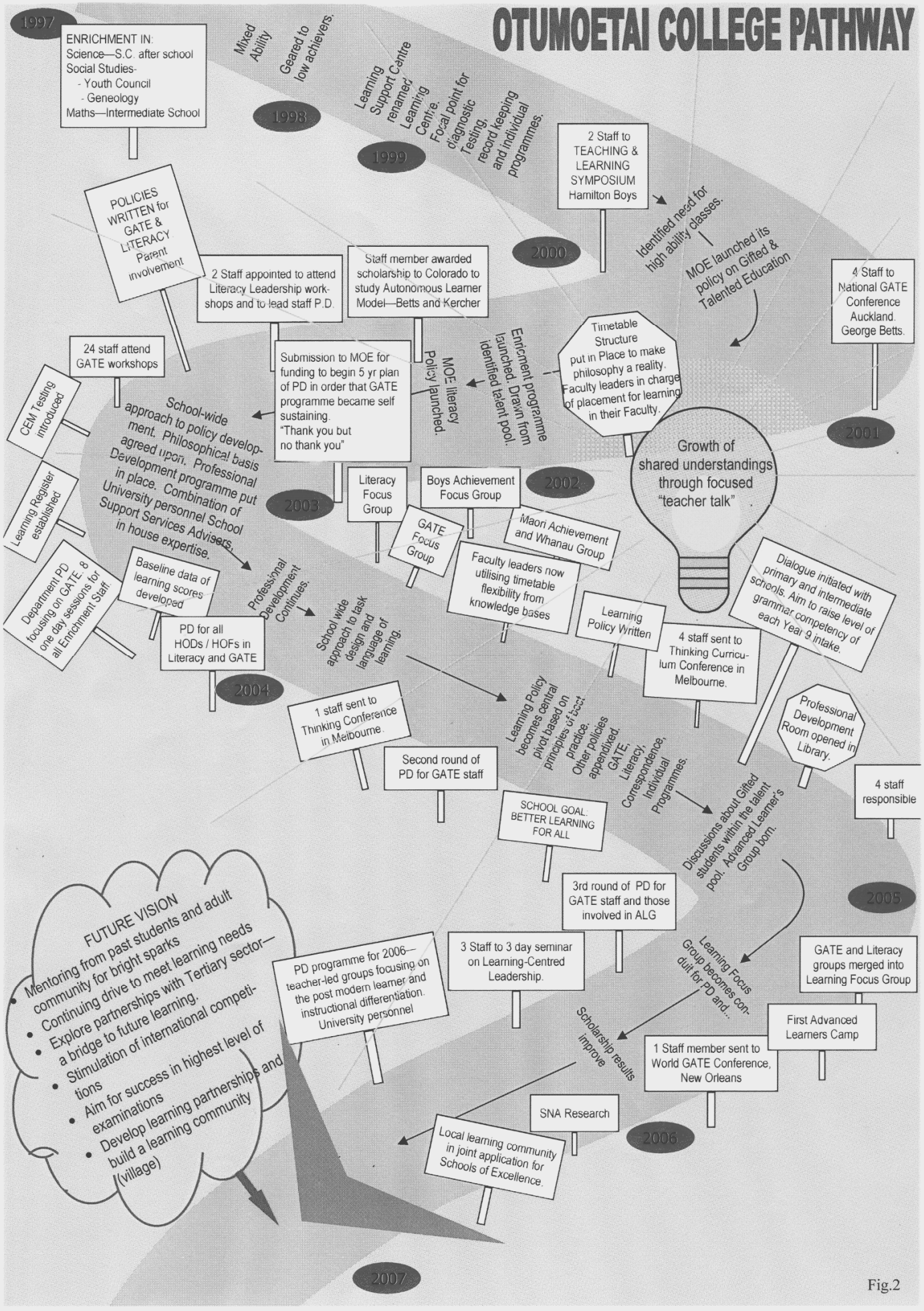
OTUMOETAI COLLEGE PATHWAY
1997
ENRICHMENT IN:
Science—S.C. after school
Social Studies-
- Youth Council
- Geneology
Maths—Intermediate School
Mixed Ability
Geared to low achievers.
1998
Learning Support Centre renamed Learning Centre. Focal point for diagnostic Testing, record keeping and individual programmes.
1999
2 Staff to TEACHING & LEARNING SYMPOSIUM Hamilton Boys
Identified need for high ability classes.
MOE launched its policy on Gifted & Talented Education
2000
4 Staff to National GATE Conference Auckland. George Betts.
2001
POLICIES WRITTEN for GATE & LITERACY Parent involvement
2 Staff appointed to attend Literacy Leadership workshops and to lead staff P.D.
Staff member awarded scholarship to Colorado to study Autonomous Learner Model—Betts and Kercher
24 staff attend GATE workshops
Submission to MOE for funding to begin 5 yr plan of PD in order that GATE programme became self sustaining.
"Thank you but no thank you"
MOE literacy Policy launched.
Enrichment programme launched. Drawn from identified talent pool.
Timetable Structure put in Place to make philosophy a reality. Faculty leaders in charge of placement for learning in their Faculty.
CEM Testing introduced
School-wide approach to policy development. Philosophical basis agreed upon. Professional Development programme put in place. Combination of University personnel School Support Services Advisers. in house expertise.
2003
Literacy Focus Group
Boys Achievement Focus Group
2002
Growth of shared understandings through focused "teacher talk"
Learning Register established
GATE Focus Group
Maori Achievement and Whanau Group
Faculty leaders now utilising timetable flexibility from knowledge bases
Department PD focusing on GATE & one day sessions for all Enrichment Staff
Baseline data of learning scores developed
Professional Development Continues.
PD for all HODs / HOFs in Literacy and GATE
2004
School wide approach to task design and language of learning.
Learning Policy Written
4 staff sent to Thinking Curriculum Conference in Melbourne.
Dialogue initiated with primary and intermediate schools. Aim to raise level of grammar competency of each Year 9 intake.
1 staff sent to Thinking Conference in Melbourne.
Second round of PD for GATE staff
Learning Policy becomes central pivot based on principles of best practice. Other policies appendixed. GATE. Literacy. Correspondence. Individual Programmes.
Professional Development Room opened in Library.
4 staff responsible
SCHOOL GOAL: BETTER LEARNING FOR ALL
Discussions about Gifted students within the talent pool. Advanced Learner's Group born.
3rd round of PD for GATE staff and those involved in ALG
2005
FUTURE VISION
Mentoring from past students and adult community for bright sparks
Continuing drive to meet learning needs
Explore partnerships with Tertiary sector—a bridge to future learning.
Stimulation of international competitions
Aim for success in highest level of examinations
Develop learning partnerships and build a learning community (village)
PD programme for 2006—teacher-led groups focusing on the post modern learner and instructional differentiation. University personnel
3 Staff to 3 day seminar on Learning-Centred Leadership.
Learning Focus Group becomes conduit for PD and...
GATE and Literacy groups merged into Learning Focus Group
First Advanced Learners Camp
Scholarship results improve
1 Staff member sent to World GATE Conference, New Orleans
SNA Research
2006
Local learning community in joint application for Schools of Excellence.
2007

Fig.2