

Submission to the House Standing Committee
on Education and Vocational Training

Australian Association for the Education of the Gifted and Talented Ltd.

GPO BOX 1171, HOBART TAS 7001
EMAIL: info@aaegt.net.au
URL: www.aaegt.net.au
ABN: 38 057 423 202

This submission was prepared by:

Ms Jane Beattie
Secretary/Tasmanian Director

Associate Professor Jim Watters
Queensland Director

Ms Wendy Stewart
South Australia Director

Ms Nancy Devlin
Northern Territory Director

On behalf of
the Australian Association for the Education of the Gifted and Talented Ltd.

Submitted September 2006.

CONTENTS

Introduction/About AAEGT	Page 3
Educational Needs of Students who are Gifted	Page 4
Addressing the Terms of Reference	Page 5
Conclusion & Comments	Page 7
References	Page 8
Appendix 1	Page 9
Appendix 2	Page 10
Appendix 3	Page 15

Preamble

In this submission we firstly provide information regarding the Association, secondly, present a snapshot of the key issues confronting the educational needs of gifted students, and thirdly, we draw upon the 2001 Senate Report 'The Education of Gifted and Talented Children' (Collins, 2001) to argue that the educational needs of students who are gifted must be addressed through dedicated and effective pre-service education programs. Our focus in this submission is item 7 in the Terms of Reference of this inquiry.

Introduction

The Australian Association for the Education of the Gifted and Talented Ltd. (AAEGT) is the only National Association concerned with the welfare and education of gifted children in Australia. It was founded in 1985 and in 1995 affiliated with all Australian state and territory associations for the gifted and talented. The Association publishes a refereed academic journal – *The Australian Journal of Gifted Education* – and convenes a biennial National conference. Its membership includes teachers, parents, policy makers, educational administrators, academics and educational institutions.

AAEGT engages with its affiliated State and Territory Associations to build a coherent and focused framework for enhancing professional knowledge, generating public understanding, driving research and scholarship, disseminating information, and leading policy development and advocacy including supporting existing initiatives and outcomes of funding to Universities to enhance their capacity to provide gifted education in pre-service teacher education. It collaborates with other Professional Teacher Associations to provide advice on issues concerning the education of gifted students.

Educational authorities in nearly all states of Australia have developed policies and guidelines for the education of gifted students; however definitions and criteria for guiding practitioners about giftedness vary and reflect diversity of opinion and terminology in the educational literature. A widely accepted definition in the United States draws upon a report by Marland in 1982 and suggests that the gifted are those who have outstanding abilities, are capable of high performance and who require differentiated educational programs to maximize their potential. The literature highlights the diversity in characteristics and personality found among gifted students and draws attention to the fact that giftedness might be masked by a range of factors including learning disabilities, culture and learning opportunities.

The Commonwealth Government through its Department of Education, Science and Training recognises the special needs of gifted students, their diversity and the need for specialized educational interventions (AGQTP, 2005, Module 1 p. 4; Module 2 p. 24, 30)

AAEGT estimates that there are over 300 000 gifted students in Australian schools, based on the fact that in 2005 there were 3,348,139 full-time school students in Australian schools (ABS, 2005). DEST (AGQTP, 2005) has accepted François Gagné's (1999) model for defining gifted students which suggests that 10 per cent of the population is gifted (AGQTP, 2005, Module 1, page 5). Therefore in December 2005 we can assume that 334,814 students attending school in Australia at that time were gifted.

2006 AAEGT Directors

President	Ms Judith Hewton
Vice President/NSW Director	Ms Catherine Wormald
Secretary/Tas Director	Ms Jane Beattie
Treasurer/WA Director	Ms Derrin Cramer
Qld Director	Assoc. Professor James Watters
SA Director	Ms Wendy Stewart
Vic Director	Ms Pamela Lyons
NT Director	Ms Nancy Devlin
Editor	Assoc. Professor Wilma Vialle
ProAPT WA Representative	Ms Lesley Sutherland

Educational Needs of Students who are Gifted

The AAEGT has adopted the position that gifted students and children do not conform to any typical manifestation of giftedness. Giftedness can be demonstrated in a range of academic and physical performance areas. Theorists have identified prototypical characteristics of the gifted which include quality of thinking, rarity of thought, memory capacity and information processing capabilities. Given their exceptional characteristics these students require specialist educational experiences. The fundamental requirement for gifted students is that the learning experiences they have are commensurate with their abilities.

There are many evidence-based practices that are adopted for gifted students depending on particular circumstances. These include acceleration, ability grouping, early entry to school/high school/university, special schools or curriculum compacting. Some of these practices are structural whereas others are pedagogical. Implementation requires highly knowledgeable and committed teachers who understand the diversity and complexity of gifted students. Failure to provide appropriate has devastating effects on gifted students. Many of these issues were highlighted in the Senate Report 'The Education of Gifted and Talented Children' (Collins, 2001).

Boredom, disengagement and more serious psychological problems were identified as serious implications of poor teaching. Indeed, underachievement and low self-esteem is recognised as a major concern where students do not receive the appropriate educational experiences in schools (Gross, 2004). A common myth is that gifted students can survive in schools and develop their abilities without any extra support - the reality is that they need specialist support. **Gifted students are special needs students and policies and practices that address the education of all special needs students must be inclusive of the gifted.**

Most States in Australia have well documented procedures for identifying and catering for the needs of gifted students, however evidence compiled in the Senate report of 2001 suggests that these strategies are not being implemented. Among the reasons given for this is the lack of knowledge of specialist educational principles underpinning gifted education. According to the findings of the 2001 Senate Report 'The Education of Gifted and Talented Children' untrained teachers are more likely to see giftedness in well-behaved children of the dominant culture, and tend to miss underachievers, divergent thinkers, visual-spatial learners, and children who mask their ability.

The previous 1988 Senate report also recommended that:

Recommendation 2: The Committee recommends to teacher training institutions that pre-service training courses include sufficient information about gifted children to make student teachers aware of the needs of those children and the special identification techniques and teaching strategies which the student teachers will have to use with the gifted on graduation.

(http://www.aph.gov.au/senate/committee/eet_ctte/completed_inquiries/1999-02/gifted/report/e05.doc)

Key recommendations arising from the 2001 Senate review which are relevant to this inquiry include:

Recommendation 4

Training for teachers to identify giftedness should pay particular attention to the need to identify gifted children who have disadvantages such as low socio-economic status, rural isolation, physical disability or Indigenous background.

Recommendation 14 (paragraph 4.67)

The Commonwealth should propose to MCEETYA that State and Territory education authorities should require, as a condition of employment, that newly graduated teachers have at least a semester unit on the special needs of gifted children in their degrees. This should include training in identification of gifted children and the pedagogy of teaching them.

Addressing the Terms of Reference of this inquiry

Item 7

***Examine the preparation of primary and secondary teaching graduates to:
(vi) deal with children with special needs and/or disabilities;***

Gifted students require learning environments where teachers can challenge them to become autonomous, creative and innovative thinkers. The knowledgeable teacher understands the necessary strategies to achieve these goals. These strategies are qualitatively different from those needed for students who struggle with learning. Even if we assume a conservative estimate of 5% of students as gifted, then most classes will probably have at least one student who needs specialist interventions. However, teachers also need to have the skills to cater for the needs of those who struggle with learning or have other special needs. Developing the necessary skills to cope with students of all ability is a major challenge for teacher educators.

We know from substantial studies conducted over a decade ago in the US that gifted students are not adequately catered for in the classroom. These studies reveal a general lack of awareness of the appropriate curriculum, resources, pedagogical and assessment strategies necessary to engage and maximise the potential of the gifted student (Archambault et al., 1993; Cox, Daniel, & Boston, 1985; Westberg, Archambault, Dobyns, & Salvin, 1993). Key international scholars continue to present clear evidence that appropriate strategies are not being implemented (Colangelo, Assouline & Gross, 2004). In particular they emphasise the need for quality teaching for the gifted students (e.g. Van Tassel-Baska, 2005).

Curricula for gifted students should include an individualised educational plan (IEP) that incorporates appropriate forms of acceleration, compacting, grouping and enrichment. Although many of these strategies are strongly contested by administrators and many teachers they are supported by research (Rogers, 2002). Gifted students are those able to proceed through the regular curriculum at a much faster pace than most. Acceleration strategies include: curriculum acceleration within a year level; curriculum compression or compaction; subject acceleration and grade or year skipping and early entry to school. The success of these strategies is dependent on the expertise in gifted education of the teacher and administrators implementing the strategies. Research has shown that for gifted students acceleration has long-term beneficial effects, both academically and socially. The most effective strategies recommended for gifted students are different from those strategies adopted for students with learning difficulties.

For teachers to identify and cater for these students access to gifted education pre-service training and continued professional learning from sources such as tertiary institutions, education systems and state and territory gifted associations is essential. Although most pre-service teacher education courses address issues around the learning of strategies to teach students with learning disabilities, **currently the majority of teacher training institutions in Australia have no mandatory training in gifted education.** (Appendix 3) Parents and the community would expect that pre-service teacher education courses would produce graduates who are beginning practitioners sensitised to the full range of issues and purposes of schooling.

AAEGT acknowledge that there are many issues that beginning teachers need to grapple including issues of behaviour management, self-efficacy in coping with their responsibilities to plan effective learning experiences and the need to develop a professional identity as teachers.

We acknowledge that all pre-service teacher education programs provide opportunities for students to consider issues of equity and inclusivity as important issues in their development of teaching expertise. Research shows that most pre-service teachers are ambivalent to the needs of gifted and reject special provisions for gifted students based on their personal ideologies (Education of Gifted and Talented Children Senate inquiry, 2001; Curtis, 2005). These beliefs do not provide a strong base to achieve national policy intentions relating to providing optimal learning experiences for the gifted. These assertions are supported by Australian based research into the role Universities play in educating pre-service teachers in gifted education (Taylor, T., & Milton, M. 2006) (Copy included Appendix 3)

We also acknowledge that institutions responsible for pre-service teacher education have limited expertise or experience with issues surrounding the education and development of gifted students. The 2001 senate report highlighted this deficiency and we recognise that steps have been made to provide funds to universities to up skill their staff in this area.

We appreciate the importance of catering for the needs of children who have learning difficulties and require specialist interventions. These students are highly visible and considerable advances have been made in provision of support. Evidence from TIMSS studies exists showing that numeracy and literacy levels of students with special needs have improved over the past decade. Courses in special education are commonplace and provide the appropriate background for beginning teachers to meet the needs of those with learning difficulties. But these courses do not usually focus on students who are gifted. Thus, new teachers have usually had little or no preparation for teaching the gifted students they will all encounter (Clinkenbeard, & Kolloff, 2001).

However, although many undergraduate pre-service teachers are exposed to "special needs" educational experiences the extent to which these experiences extend to gifted students is problematic. In the language and discourse of most institutions "exceptionality" and "special needs" is focused on students who struggle with learning.

Gifted students must be considered as special needs students in so far as they need specialist teacher interventions, they need curriculum strategies and educational environments that foster their special abilities. Current Australian government policy acknowledges these needs especially in the level of support provided through professional development programs under the AGQTP program.

Conclusion & Comments

Across both Commonwealth and State Parliaments there is broad non-partisan support for developing the nation's intellectual capabilities. Society needs creative and innovative thinkers, scientists, engineers and leaders. These individuals are currently languishing in schools across Australia because they are unable to get the level of support they need from their teachers.

The responsibility for challenging students with exceptional abilities must be shared by the many sectors of society and levels of government. However, ultimately society looks to schools and individual teachers to support students to achieve their potential by striving for the levels of excellence they are capable. **In order to reach this goal teachers need highly specialised skills - the foundations of which must be laid in pre-service teacher education programs.**

We must reiterate the obvious; that it will be the exceptional, creative and innovative child who will become the innovative and creative worker of tomorrow. It will be today's gifted student who will provide the solutions to tomorrow's problems.

Although each state has adopted various strategies to recognise these students and their contribution to the economy and our cultural identity in particular ways, the level of professional support in training teachers is problematic. A central issue is that Universities by and large are not providing sufficient emphasis on the preparation of pre-service teachers.

We make the following recommendations for consideration by this inquiry.

Recommendation 1: Responsibilities of Deans of Education: We urge that the Commonwealth Government to reconsider the recommendations of both the 1988 and 2001 Senate Reviews on gifted education which advocated for a strengthening of pre-service teacher education programs to ensure that all beginning teachers had experienced specific and identifiable training in the education of gifted students. (The recommendations of the 2001 review are to be found in Appendix 2 of this submission).

In its response to the Senate Report of 2001, the Government agreed with the recommendation that teacher education programs should equip teachers to identify gifted students whose abilities might be masked by a range of circumstances. Proposed action was centred on an approach by DEST to the Australian Vice Chancellors' Committee and Deans of Education to highlight the need for teacher training programs to address issues associated with not only identifying giftedness but also managing it effectively in the classroom setting. It would appear that a very limited response has come from the Higher Education Sector or Deans of Education.

Recommendation 2: Focus of gifted education preservice training: The provision of support for gifted education throughout Australia is often focussed at the upper level of schooling where select schools exist, special academies are being established and structural programs are in place to support gifted students. However, it is crucial that gifted students are identified early in their schooling and appropriate strategies implemented to accommodate their special needs. Thus we recommend that particular attention be given to implementing courses in preservice teacher education programs for early childhood and primary.

Recommendation 3: Resourcing: We recommend that the Commonwealth Government provide funding to develop resources for pre-service teacher education programs (complementary to the existing AGQTP resources (AGQTP, 2005) but supplemented with multimedia support illustrating acceptable educational practices.

Recommendation 4: Exemplary practice: The development of effective teacher education programs is predicated on the identification of exemplary practice in the Australian Context. Many of the resources currently available for gifted education are drawn from the USA. We recommend the provision of funding to undertake research on exemplary practices and how models of practice across Australia can be incorporated into pre-service teacher education programs.

Recommendation 5: Networking: We also recommend that the Commonwealth Government support the development of networks of practitioners and pre-service teacher educators to share and collaborate on the development of exemplary curricula for pre-service teacher education. This might take the form of a national forum.

References

- ABS (2005). 4221.0 Schools (Available on line at <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4221.0Main+Features12005?OpenDocument>)
- AGQTP (2005). Gifted education professional development package. Canberra: DEST (Available on line at http://www.dest.gov.au/sectors/school_education/publications_resources/profiles/Gifted_Education_Professional_Development_Package.htm).
- Archambault, F., Westberg, K., Brown, S., Hallmark, B., Zhang, W., & Emmons, C. (1993). Classroom practices used with gifted third and fourth grade students. *Journal for the Education of the Gifted*, 16(2), 13-28.
- Clinkenbeard, P. R., & Kolloff P. B. (2001). Ten suggestions for including gifted education in pre-service teacher education. *The Teacher Educator*. 36(3), 214-218.
- Cox, J., Daniel, N., & Boston, B. (1985). *Educating able learners: Programs and promising practices*. Austin, TX: University of Texas Press. ED 266 567.
- Colangelo, N., Assouline, S. G., & Gross, M. U. M. (2004). *A nation deceived: How schools hold back America's Students: The Templeton National Report on Acceleration*. Iowa City, IA: Belin-Blank Center. (Volumes 1 and 2).
- Curtis, J. (2005). *Pre-service teachers' attitudes toward gifted students and gifted education*. Unpublished Ed.D. Dissertation, Columbia University Teachers College.
- Collins, J. (2001). *The Education of Gifted and Talented Children*. Senate Employment, Workplace Relations, Small Business and Education References Committee. Canberra, AGP.
- Gross, M. (2004). *Exceptionally gifted children*. London & New York: Routledge.
- Marland, S. P. Jr (1982). *Education of the gifted and talented*, USGPO, Washington D.C.
- Rogers, K. (2002). *Reforming gifted education: How parents and teachers can match the program to the child*. Scottsdale, AZ: Great Potential Press.
- Taylor, T., & Milton, M. (2006). Preparation for teaching gifted students: An investigation into university courses in Australia *Australasian Journal of Gifted Education*, 15 (1), 15-22.
- Van Tassel-Baska, J. (2005). Gifted programs and services: what are the non-negotiables? *Theory into Practice*, 44(2), 90-97.
- Westberg, K., Archambault, F., Dobyms, S., & Salvin, T. (1993). The classroom practices observation study. *Journal for the Education of the Gifted* 16(2), 29-56.

APPENDIX 1

AAEGT AFFILIATED ASSOCIATIONS 2006**Gifted and Talented Children's Association of South Australia Inc.***Email:* info@gtcasa.asn.au*Website:* www.gtcasa.asn.au**Gifted and Talented Children's Association of Western Australia***Email:* gatca-wa@gatcawa.org*Website:* www.gatcawa.org**New South Wales Association for Gifted and Talented Children Inc.***Email:* office@nswagtc.org.au*Website:* www.nswagtc.org.au**Northern Territory Association for the Education of the Gifted and Talented Inc.***Email:* webmaster@ntaegt.org.au*Website:* www.ntaegt.org.au**Professional Association of Parents and Teachers of the Gifted (ProAPT) WA***Website:* www.proapt.net**Queensland Association for Gifted and Talented Children Inc.***Email:* office@qagtc.org.au*Website:* www.qagtc.org.au**Tasmanian Association for the Gifted Inc.***Email:* office@tasgifted.org.au*Website:* www.tasgifted.org.au**Victorian Association for Gifted and Talented Children Inc.***Email:* infolorax@vagtc.asn.au*Website:* www.vagtc.asn.au

APPENDIX 2

Senate Employment, Workplace Relations, Small Business and Education References Committee

The Education of Gifted and Talented Children

2 October 2001

© Commonwealth of Australia 2001

Full report can be found at:

http://www.aph.gov.au/senate/committee/eet_ctte/gifted/report/contents.htm

SUMMARY AND RECOMMENDATIONS

CHAPTER 1 – OVERVIEW

1. In evidence all types of interest groups agreed that there is a problem with education of gifted children. These children have special needs in the education system; for many their needs are not being met; and many suffer underachievement, boredom, frustration and psychological distress as a result.
2. Submissions differed mainly in their preferred solutions – in particular, over whether the main focus of intervention should be in the mainstream comprehensive classroom, or in ability grouped settings.
3. All agreed that better teacher training and better curriculum support are essential to ensure that that teachers are able to differentiate the curriculum for gifted children.
4. Gifted children are found in all socio-economic and ethnic groups. Failing to attend to the special needs of gifted children is most detrimental to underprivileged children, because they are least likely to have other supports outside the school.

CHAPTER 2 -DEFINING THE PROBLEM

5. There is a duty to help all children achieve their potential. The common belief that the gifted do not need special help because they will succeed anyway is contradicted by many studies of underachievement and demotivation among gifted children.
6. There is a concern that emphasis on minimum standards and benchmarks in key policy documents such as the Adelaide Declaration on National Goals for Schooling may discourage paying due attention to the needs of the gifted. The Committee agrees with the suggestion that the national reporting framework should be expanded to focus on not only minimum benchmarks but also high aspirations.

Recommendation 1 (paragraph 2.31)

MCEETYA should expand the national reporting framework for school education to focus on not only minimum benchmarks but also high achievement targets for gifted children.

7. In defining 'gifted', the practical focus should be on fields of endeavour relevant to planning educational interventions. In view of the special needs mentioned in submissions, the Committee suggests a focus on 'high intellectual or creative ability'.
8. Negative attitudes and mistaken beliefs about gifted children appear to be widespread. There is a need for research into the reasons for negative attitudes.

Recommendation 2 (paragraph 2.86)

MCEETYA should commission research into the reasons for negative attitudes to high intellectual ability.

9. Special needs (giftedness) should be seen in the same light as special needs (intellectual disabilities) or special needs (physical disabilities). Policy documents should make this clear.

Recommendation 3 (paragraph 2.90)

Peak education policy documents such as the Adelaide Declaration or State/Territory equivalents, where they refer to special needs or individual differences, should make it clear that 'special needs' includes giftedness.

CHAPTER 3 - BETTER SCHOOLING FOR GIFTED CHILDREN

10. Teachers need to be trained to identify gifted children. 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.
11. This training should pay particular attention to the need to identify gifted children who have disadvantages such as low socio-economic status, rural isolation, physical disability or Indigenous background.

Recommendation 4 (paragraph 3.38)

Training for teachers to identify giftedness should pay particular attention to the need to identify gifted children who have disadvantages such as low socio-economic status, rural isolation, physical disability or Indigenous background.

12. The curriculum needs to be differentiated to suit the different learning needs of gifted children. Ad hoc enrichment activities, or enrichment that is suitable for the whole class, are insufficient. In this regard, submissions noted difficulties of inadequate central or regional curriculum support. Problems are exacerbated by the trend of devolution of responsibility to schools. The Committee recommends that MCEETYA should develop a strategy setting out goals for differentiating the curriculum for the gifted.

Recommendation 5 (paragraph 3.67)

MCEETYA should develop a strategy setting out goals for differentiating the curriculum for the gifted.

13. There is overwhelming research evidence that appropriate acceleration of gifted students who are socially and emotionally ready usually has highly advantageous outcomes. However willingness to use acceleration varies considerably from state to state. The Committee recommends that MCEETYA should develop a more consistent policy encouraging suitable acceleration.

Recommendation 6 (paragraph 3.94)

The Commonwealth should propose that MCEETYA develop a consistent policy encouraging suitable acceleration for the gifted.

14. Ability grouping for the gifted is controversial. Detractors refer chiefly to problems of socialisation. Supporters refer to strong research evidence of improved educational outcomes for the grouped children, and deny that there are significant problems of socialisation. In considering this debate it should be stressed that
- ability grouping of the gifted is very different from streaming the entire year group. General streaming is now widely regarded as educationally unsound, and no submissions advocated it.
 - ability grouping of the gifted within comprehensive schools raises different issues from fully selective schools.
15. In the Committee's view there is considerable educational justification for ability grouping for the gifted.

Recommendation 7 (paragraph 3.110)

MCEETYA should develop a consistent policy exploring the options for ability grouping and supporting ability grouping as a way of meeting the needs of the gifted, whether in selective or comprehensive schools.

16. Fully selective schooling is controversial. Issues relating to fully selective schools, and those relating to groupings within comprehensive schools, should be argued separately on their merits. The Committee recommends that the Commonwealth should propose to MCEETYA that states with selective schools or classes should research the effects of selective schooling, including comparison of the fully selective model and the 'focus class' model (a selective high ability group within an otherwise comprehensive school).

Recommendation 8 (paragraph 3.113)

The Commonwealth should propose to MCEETYA that states with selective schools or classes should research the effects and outcomes of selective schooling.

17. It is essential that policies should be backed up by the necessary resources.

Recommendation 9 (paragraph 3.121)

Policies on gifted education should include discussion of the resource implications and the sourcing of the necessary resources.

18. Adequate provision for gifted children in the public education system is essential so that provisions will be accessible to lower socio-economic groups. This applies both generally and in relation to specialist schools or centres of excellence such as performing arts schools. All children should have access to a broad curriculum including humanities and arts as well as more vocational subjects. The Committee recommends that MCEETYA should investigate the options for wider provision of centres of excellence in the public school system.

Recommendation 10 (paragraph 3.135)

MCEETYA should investigate the options for wider provision of centres of excellence in the public school system.

19. The approach of universities to early entry for gifted students varies. The Committee believes that this is a suitable matter for national co-ordination.

Recommendation 11 (paragraph 3.145)

The Australian Vice-Chancellors' Committee, in consultation with school education authorities, should develop a policy providing more flexible university entry and study options for gifted students.

CHAPTER 4 - TRAINING TEACHERS TO HANDLE GIFTED CHILDREN

20. All submissions agreed that teachers are not being adequately trained to handle gifted children, and better teacher training is essential. The teaching skills needed to handle gifted children can benefit all children.
21. Arguably the profile of education of gifted children in university education faculties needs to be raised. However the Commonwealth does not involve itself in the detail of university courses. The Committee does not think it is appropriate to recommend that the Commonwealth should attempt to mandate gifted education units directly. State employing authorities are primarily responsible for ensuring that newly graduated teachers have suitable qualifications. The Committee recommends that the Commonwealth should propose to MCEETYA that State and Territory authorities should require newly graduated teachers to have a unit on the special needs of gifted children in their degrees.

Recommendation 14 (paragraph 4.67)

The Commonwealth should propose to MCEETYA that State and Territory education authorities should require, as a condition of employment, that newly graduated teachers have at least a semester unit on the special needs of gifted children in their degrees. This should include training in identification of gifted children and the pedagogy of teaching them.

22. The Committee thinks that the effects of postgraduate deregulation on gifted education studies is worth further investigation.

Recommendation 12 (paragraph 4.46)

The Department of Education, Training and Youth Affairs (DETYA) should investigate and report on the profile of postgraduate studies in gifted education over the last five years, in particular whether postgraduate funding policies have had detrimental effects on participation in such studies. DETYA should monitor the effect of the new Postgraduate Education Loan Scheme in this regard.

23. In any case, in view of the special needs mentioned in this inquiry the Committee thinks it is reasonable that the Commonwealth should provide targeted places to encourage postgraduate studies in gifted education.

Recommendation 13 (paragraph 4.47)

The Commonwealth should fund targeted postgraduate places for gifted education studies.

24. In-service professional development for teachers is important because of the aging demographic profile of the service. Submissions raised various problems to do with professional development in relation to gifted education. The Commonwealth assists professional development through the Quality Teacher Programme. In view of the special needs mentioned in this report the Committee thinks it reasonable that issues to do with giftedness should be a priority.

Recommendation 15 (paragraph 4.72)

The Commonwealth should specify professional development on issues to do with giftedness as a priority in the Quality Teacher Programme.

25. In the Committee's view there should be a special responsibility to ensure that teachers in selective classes or selective schools are suitably trained.

Recommendation 16 (paragraph 4.73)

The Commonwealth should propose to MCEETYA that State and Territory education authorities should require that teachers in selective schools and classes have suitable gifted education qualifications. The authorities should ensure that the necessary professional development is available. The Commonwealth should support this through the Quality Teacher Programme.

CHAPTER 5 - THE ROLE OF THE COMMONWEALTH

26. Submissions argued that the Commonwealth should establish a national strategy on gifted education, to ameliorate the changeable and unstable state of policy and practice. The Committee agrees that this is an appropriate goal for national co-ordination.

Recommendation 17 (paragraph 5.6)

MCEETYA should develop a national strategy on education of the gifted.

27. Submissions recommended that the Commonwealth should fund a national research centre on gifted education. The Committee agrees. This raises the general question of how the Commonwealth could or should co-ordinate the university system to create national centres of excellence in subjects not covered by the Cooperative Research Centre structure.

Recommendation 18 (paragraph 5.9)

The Commonwealth should fund a national research and resource centre on gifted education.

28. Present Commonwealth targeted assistance relating to 'educational disadvantage' defines the term in a way that seems to exclude the disadvantage suffered by unrecognised, underachieving gifted children.

The Committee recommends that the guidelines for these programs should be amended to clarify that the disadvantages suffered by gifted children whose needs are not met are within scope.

Recommendation 19 (paragraph 5.13)

The Commonwealth should amend the guidelines for targeted programs for schools to confirm that the disadvantage suffered by gifted children whose needs are not met is within the meaning of 'educational disadvantage'.

29. Submissions recommended that the Commonwealth should sponsor national curriculum materials (including online materials) to help teachers differentiate the curriculum for gifted children. The Committee agrees that this is an appropriate goal for national co-ordination.

Recommendation 20 (paragraph 5.14)

The Commonwealth through MCEETYA should support development of national curriculum materials to differentiate the curriculum for gifted children.

APPENDIX 3

Preparation for teaching gifted students: An investigation into university courses in Australia

Tracy Taylor & Marion Milton
Edith Cowan University

Abstract

This paper examines University course provision in the field of gifted education. Much prior research has indicated that gifted students need to receive instruction commensurate with their abilities. As the majority of gifted students in primary schools in Australia spend most of their educational time in regular classrooms, there is a need for their instruction to be differentiated. The teacher skills necessary to be able to provide an appropriate educational environment for gifted students may not always be addressed as part of a pre-service training course. Further, many people undertaking a teacher preparation course would not have experienced or witnessed such specific teaching methods during their own learning and so will have no knowledge of the ways to stimulate, motivate, challenge and educate gifted students. Even though a Senate inquiry in 2001 recommended that Universities include units in gifted education in their pre-service training, this investigation finds that little has changed.

Introduction

This paper examines the extent of university training in gifted education, available to pre-service undergraduate and post-graduate primary teachers in Australia. It also briefly covers the educational needs of gifted students, the type of instruction necessary to motivate, and challenge gifted students and questions whether teachers are being provided with the training necessary to implement suitable programs for gifted students.

A comprehensive inquiry into gifted education in Australia was initiated in 1986 to determine whether the policies and programs for gifted and talented students were appropriate for those students. This resulted in the *Report of the Select Committee on the Education of the Gifted and Talented Children* (Parliament of the Commonwealth of Australia, 1988), which covered a wide range of factors in its findings. In relation to teacher training it found that, "Most pre-service teacher education courses in Australia offered, at most, a few lectures on gifted education or an elective unit, often within the context of Special Education" (Parliament of the Commonwealth of Australia, 1988, par. 7.19). Hence the report recommended that pre-service courses at teacher training institutions include "sufficient information about gifted children to make student teachers aware of the needs of those children" (Parliament of the Commonwealth of Australia, 1988, par. 7.27). The report further stated that this information should include identification techniques and teaching strategies.

A review of university provision, just over a decade later (Kronborg & Moltzen, 1999), reported that few universities had undergraduate units in Gifted Education. Only Victoria had one, and Queensland two, optional elective units in Gifted Education. This paper did not report on gifted content within other units, such as Special Education, so may have understated the amount of provision. Their report on university provisions at the post-graduate level indicated a wider selection. Three states offered a range of elective units or courses, however the majority of states offered no post-graduate units or courses in Gifted Education. It is possible that individual lectures or parts of units (e.g. in Special Education) could have been offered in Gifted Education, however they were not identified.

In 2001, a select committee of the Australian Senate (Parliament of the Commonwealth of Australia, 2001) followed up the 1988 report by completing an inquiry into Gifted Education (hereafter called the Senate Inquiry, 2001). The main brief was to determine whether the situation had improved and whether the educational needs of gifted children were being met. One of the main findings was that provision for gifted students' educational needs was inadequate and that this seemed to stem from a lack of teacher understanding of the educational needs of gifted students. It was stated in the report that "many teachers feel a lack of expertise, lack of confidence and lack of resources to meet the needs of gifted children" (Senate Inquiry, 2001, p. xi). Teachers lacked knowledge about ways to identify gifted students, issues, suitable strategies, and the need to differentiate the curriculum. Given the meagre number of units or courses on Gifted Education in pre-service provision, teachers' lack of knowledge in the area is comprehensible. After examining teacher-training issues, the Senate Inquiry recommended that:

Submission on Teacher Training- AAEGT Ltd 2006.

Recommendation 14

The Commonwealth should propose to MCEETYA that state and territory education authorities should require, as a condition of employment, that newly graduated teachers have at least a semester unit on the special needs of gifted children in their degrees. This should include training in identification of gifted children and the pedagogy of teaching them. (Senate Inquiry, 2001, p. 96)

Probably the simplest reason for the non-inclusion of gifted education in training courses, and the lack of response to prior research and the report of the Select Committee, is a pervasive belief that gifted children will learn without special provision; that they will automatically excel with the regular curriculum and instructional methods that work with most students. Research in this area indicates that there is little understanding of the nature of giftedness or the needs of gifted learners in the general community or amongst the teaching profession and therefore little understanding of the need for specific training in this area (Braggett & Moltzen, 2000; Lewis & Milton, 2005). It is pertinent at this point to consider the characteristics of gifted students that make special provisions necessary.

Characteristics of gifted students

The significant characteristic of giftedness in educational settings is seen as the ease and speed with which students are able to think and to learn new concepts (Gagné, 1999; Gallagher, 2000). Gifted learners will also often demonstrate characteristics such as an ability to understand complex concepts and retain learning easily, to think at abstract levels at a younger age, to exhibit longer attention and concentration spans and to have high levels of motivation in areas of interest. Gifted children's social-emotional development also commonly differs from their age-peers (Harrison, 2004).

It should also be noted that while most gifted learners will display the above characteristics most of the time, they are not a homogeneous group and have diverse cognitive, affective and social needs (Shaywitz, Holahan, & Freudenheim, 2001; Tomlinson, 2005). This consideration necessitates a range of educational provisions to suit particular children's needs amongst the gifted population. It is one of the factors that may make identification of the gifted difficult. The Senate Inquiry (2001) noted that teachers are often only able to identify gifted students when they come from the same dominant cultural background as the teacher. This resulted in gifted students from diverse social or cultural backgrounds, for example, low socio-economic status, rural isolation, physical disability or indigenous background and those who have a co-existing learning disability, not being identified as gifted.

Learning needs of gifted students

Learning traits such as those noted above require a program that includes a faster pace, greater depth and conceptual complexity (Westberg & Archambault, 1997). It follows that a regular curriculum, designed for average students, may easily induce boredom in gifted students. The Senate Inquiry (2001) noted that many gifted children did not have their educational needs met and that this led to "underachievement, boredom, frustration and psychological distress" (pxiii).

Key elements in this situation are teacher beliefs concerning giftedness and attitudes towards provision for gifted learners. Despite much research to the contrary, misconceptions such as "*the gifted do not need special provisions, they will learn anyway*", that "*lateral enrichment will adequately cater for the gifted learners' needs*", or that "*gifted children come mainly from the mainstream culture or from families of a higher socio-economic status*" are still common (Braggett & Moltzen, 2000; Lewis & Milton, 2005). While community attitudes in Australia are positive towards giftedness which is displayed in the physical domain (e.g. sport, dancing), negative attitudes towards intellectual giftedness are widespread (Gross, 1999; Senate Inquiry, 2001) and allow such misconceptions to go unchallenged.

Teaching gifted students

It has been demonstrated that to teach all students via the same instructional practices and curriculum content fails to meet the learning needs of the gifted (Tomlinson, 1995; Westberg & Archambault, 1997). Rosselli (1993) argued that appropriate modifications for gifted students involve a variety of strategies which are relatively easy to implement, only relying on the organisational ability and commitment of the teacher. However Johnsen and Ryser (1996) reported that "teachers need considerable assistance in designing alternative activities that challenge gifted students" (p.385). Reis and Westberg (1994) found a significant

Submission on Teacher Training- AAEGT Ltd 2006.

difference in the ability of teachers to modify curriculum between teachers who were trained in the differentiation strategy of curriculum compacting and those in control groups which did not receive such training.

Historically, provision for exceptionally gifted learners has focused on pull-out programs, special classes or special schools rather than provision within regular classes, creating the assumption that gifted courses need to be taught by specialist rather than generalist teachers and that training in Gifted Education for all teachers was not necessary (Agne, 2001; Braggett, 1993). Submissions to the 2001 Senate Inquiry differed in their suggestions as to how to cater for gifted students. These ranged from high ability groupings within classes, special placement/ schools for gifted students, acceleration across classes, to differentiated or expanded curricula. While they recommended a range of options for the education of gifted students, they recommended that for gifted students in regular classes, the curriculum needed to be differentiated and that enrichment activities are insufficient.

Gifted students in regular classes

The reality is that most gifted primary students in Australia currently spend at least ninety percent of their time in heterogeneously grouped classes (Braggett & Moltzen, 2000). It has been shown repeatedly in the research that gifted learners require educational provisions which differ from those offered to other students (Senate Inquiry, 2001; Tomlinson, 1995; Westberg, Archambault, Dobyms, & Slavin, 1993). Therefore the regular class teacher's role in implementing appropriate learning opportunities for gifted students is critical. If all teachers are expected to be familiar with the latest methods of providing for gifted children, it follows that teachers need the training necessary to effectively perform this role. Previously mentioned Australian research and the recent Senate Inquiry (2001) indicates that little appropriate training in Gifted Education is available to regular class teachers. Therefore few teachers of regular classes modify the curriculum or their instructional strategies to cater for gifted students (Westberg et al, 1993; Westberg & Archambault, 1997; Whitton, 1997). It has been found, however, that teacher training has a significant impact on teachers' ability to provide effective learning experiences for gifted children and that with training teachers are more likely to espouse appropriate beliefs and attitudes towards giftedness, display improved ability to identify gifted learners and to differentiate learning (Hansen & Feldhusen, 1994; Johnsen & Ryser, 1996; Tomlinson, 2005; Vialle & Quigley, 2002) this makes training for regular class teachers important. As Moltzen (1998) stated:

Provision for most of our gifted students should first and foremost be directed at the regular teacher in the regular classroom. The contention is that the critical factor is not the setting, but the teacher, and that attention should be paid to equipping regular classroom teachers to cater for their needs of the gifted within the regular classroom. (p.38)

Method

The current study sought to determine whether the findings of the Senate inquiry had impacted on teacher training. Therefore, universities offering primary teacher education courses were identified to obtain information about current university level training in gifted education at both undergraduate and post-graduate levels. Current course information was gained from university websites regarding whole units of gifted education and units containing components of gifted education. Each relevant university's website was systematically searched via three methods:

- a general search of the website for 'gifted education', 'special education' and 'inclusive education';
- a search of online handbooks for units in gifted education and special education with gifted education components; and,
- a search through the content of primary teaching courses.

Frequently, a general search for 'gifted' or 'gifted education' obtained no results. It was therefore necessary to search units in Special Education for explicitly-stated gifted content to locate elements embedded within these units. It is acknowledged that this method does not identify other available sources of training in gifted education. Employing authorities and State gifted associations organise professional development for teachers in gifted education, however these tend to be occasional rather than regular and far more difficult to document. Investigating university courses does identify the main pre-service training for primary teachers and systematically organised post-graduate opportunities for in-service teachers. It is also acknowledged that some universities claim that gifted education is addressed within general education units, however if gifted content was not explicitly stated in the unit outlines, this was not able to be taken into account for this study.

Results

Table 1 displays the undergraduate units and courses available at Australian Universities in 2005. Thirty five universities in Australia currently offer primary teacher education training courses. A philosophy of inclusive education has led to a requirement by all state employing authorities in Australia that new graduates have completed at least one unit in 'special needs' or 'inclusive' education. In response to this requirement, all Australian university education faculties now include a unit in catering for special needs learners in undergraduate teacher training courses. These units typically cover a broad spectrum of special needs such as learning difficulties, physical disabilities, and (sometimes) giftedness. While the wording of most of the units *could be* inferred to include giftedness, only 8 of the 35 universities (23%) explicitly stated the inclusion of gifted education content in these units. In the list of contents of units available it appears that giftedness is often the topic for 1 week, usually involving three hours of contact time, typically 2x1-hour lectures and a 1-hour tutorial or 1x1-hour lecture and a 2-hour tutorial/workshop. Elective units in gifted education are offered at only 11 universities (31%), indicating that most primary teacher trainees attend a university which does not give them the option of furthering their knowledge in this area.

By way of comparison, the research of Kronborg and Moltzen (1999) identified three optional units, and a submission to the Senate Inquiry (2001, submission no 106, McCann) reported five optional units available at Australian universities. While it is noted that there has been an increase in the provision of training in Gifted Education since the earlier research, the situation is still inadequate. The most notable fact demonstrated by the above data, especially with reference to the Senate Inquiry (2001), is that only one university (for secondary teachers) was found to have a compulsory gifted education unit and that no university in Australia presently includes a compulsory unit in Gifted Education within a primary teacher training course. [The University of Wollongong will include a unit in its primary program from 2007. Ed]

Table 1. Undergraduate units and courses in Gifted Education in Australia, 2005

State	Number of universities				
	Primary teacher training courses	Special/ Inclusive Education core unit	Special Ed Core unit that states gifted content	Optional/ elective units in GE	Compulsory unit(s) in GE (primary)
New South Wales	10	10	0	4	0
Victoria	7	7	3	2	0
Queensland	6	6	3	2	0
Western Australia	5	5	2	2	0
South Australia	3	3	0	1	0
Tasmania	1	1	0	0	0
Northern Territory	1	1	0	0	0
ACT	1	1	0	0	0
Multi-state	1	1	0	0	0
TOTAL	35	35	8	11	0

Table 2. Post-graduate Courses offering units/courses in Gifted Education, 1999

State	Post Graduate Level Elective Units	Post – Graduate Certificate	Post- Graduate Diploma	Master of Education	Doctoral / Research
New South Wales	2	4		3	2
Victoria	1	2	1	2	2
Queensland					
Western Australia					
South Australia		1		1	
Tasmania					
Northern Territory					
ACT					
TOTAL	3	7	1	6	4

(extracted from Kronborg & Moltzen, 1999)

Post-graduate Courses

Historically there has been more provision for training in Gifted Education at the post-graduate level. In order to ascertain whether the situation has improved in recent years, information has been extracted from the research by Kronborg and Moltzen (1999) and placed in Table 2. Similar information was reported in a submission to the Senate Inquiry (2001, submission no. 106, McCann), however as there was not always a differentiation made between the types of courses (e.g. Graduate Certificate, Masters), it would be difficult to put this information into a comparable table. Therefore, for this section we have relied on the earlier research, except where it is clear that additional courses/units had been mounted. In 1999, universities in NSW offered nine different post-graduate level courses in Gifted Education; Victoria offered seven; and South Australia, two. Universities in other states did not have any special units or courses at that time.

The submission to the Senate Inquiry (2001, submission no. 106, McCann) noted that two universities in Queensland offered post-graduate topics in Gifted Education, that a university in South Australia offered a PhD along with the other post-graduate courses mentioned previously, and that a university in WA offered limited post-graduate topics in Gifted Education.

In the current study, we identified units and courses in Gifted Education at the post-graduate level, which were offered by Australian universities in 2005. This information is displayed in Table 3. It can be seen that NSW Universities currently offer fifteen courses, an increase of 66 % since 1999. The number of units in other courses has increased from 3 to 7. The offering in Victoria has changed little, from 7 to 8 courses, although the number of elective units within other courses has increased from 1 to 4. South Australia has increased its offering of courses from 2 to 4 and Queensland now has 4 courses on offer. The remaining states, however still have no courses or elective units available in Gifted Education at the post-graduate level, although there may be some topics within units.

Discussion

Gifted students are able to think quickly, learn easily, understand complex and abstract concepts (Gagné, 1999; Gallagher, 2000). Such learning traits require a program that includes a faster pace, greater depth and conceptual complexity (Westberg & Archambault, 1997). When those needs are not met, gifted students often experience underachievement, boredom and frustration (Senate Inquiry, 2001). There appears to be little understanding of the nature of giftedness or the needs of gifted learners, however, either in the general community or amongst the teaching profession (Braggett & Moltzen, 2000; Gross, 1999; Lewis & Milton, 2005). There is, therefore, little understanding of the need for specific training in this area for regular class teachers.

Often when special programs or classes are deemed necessary, assumptions are made that such courses need to be taught by specialist rather than generalist teachers (Agne, 2001; Braggett, 1993). This further supports an opinion that training in Gifted Education for all teachers is not necessary. Research has shown that teacher training can have a positive impact on teachers' ability to provide effective learning experiences for gifted children and that with training teachers are more likely to espouse appropriate beliefs and attitudes towards giftedness, to display improved ability to identify gifted learners and to differentiate learning (Hansen & Feldhusen, 1994; Tomlinson, 2005). Currently in Australia, gifted students spend the majority of their time in regular classes, therefore it follows that training in Gifted Education needs to be part of the standard training of all teachers, not just for specialist teachers.

Table 3. Post-graduate units and courses in Gifted Education in Australia, 2005

State	Post-Graduate Level Elective Units	Post-Graduate Certificate	Post-Graduate Diploma	Master of Education	Doctoral / Research
New South Wales	7	6	3	3	3
Victoria	4	2	2	2	2
Queensland	1	1	1	1	1
Western Australia	0	0	0	0	0
South Australia	1	1	1	1	1
Tasmania	0	0	0	0	0
Northern Territory	0	0	0	0	0

ACT	0	0	0	0	0
TOTAL	13	10	7	7	7

From the data currently available, it appears that teachers in most states of Australia currently have little (or no) access to pre-service training in gifted education at a university level. While teachers in four states have access to post-graduate training, the teachers in the remaining states/territories have nothing unless there are individual lectures/topics within other units. Although government inquiries and research over the past decade have recommended a far greater level of provision in this area, current teacher training does not provide sufficient opportunities for regular class teachers to develop the skills shown to be necessary to effectively cater for gifted students.

A significant implication of the omission of Gifted Education in training courses is that it perpetuates the myths that specialised provision for gifted students is unnecessary and that no specialised training is required to teach them. Graduating teachers and the wider profession are thus allowed to hold on to misconceptions common in the wider community, assuming that the training they have undertaken will enable them to teach gifted children.

Conclusion

The evidence presented in this paper indicates that several Australian states have little or no university provision in the field of Gifted Education, particularly at the undergraduate level. Therefore graduating teachers will have little or no understanding of how to cater for the educational needs of the gifted children in their classes. Present reality is that, for a wide range of educational, socio-political and economic reasons, the majority of gifted primary students will spend at least ninety percent of their time at school in a regular classroom with age-peers rather than intellectual-peers. It is clearly established in the literature that teachers with specific training in gifted education are more able to provide appropriate programs in these settings, while those without training struggle to do so.

The paucity of university level training currently available in Gifted Education not only does a disservice to our gifted students but also to the regular class teachers who are expected to cater for them.

References

- Agne, K. J. (2001). Gifted: the lost minority. *Kappa Delta Pi Record*, 37(4), 168-172.
- Braggett, E. J. (1993). Recent historical forces on gifted education in Australia. *The Australasian Journal of Gifted Education*, 2(1), 16-20.
- Braggett, E. J., & Moltzen, R. I. (2000). Programs and practices for identifying and nurturing giftedness and talent in Australia and New Zealand. In K. A. Heller, F. J. Monks, R. J. Passow & R. F. Subotnik (Eds.), *International Handbook of Giftedness and Talent* (2nd ed.). Oxford: Elsevier Science.
- Gagné, F. (1999). My convictions about the nature of abilities, gifts and talents. *Journal for the Education of the Gifted*, 22(2), 109-136.
- Gallagher, J. (2000). Unthinkable thoughts: Education of gifted students. *Gifted Child Quarterly*, 44(1), 5-12.
- Gross, M. U. M. (1999). Small poppies: highly gifted children in the early years. *Roeper Review*, 21(3), 207-214.
- Hansen, J., & Feldhusen, J. (1994). Comparison of trained and untrained teachers of gifted students. *Gifted Child Quarterly*, 38(3), 115-121.
- Harrison, C. (2004). Giftedness in Early Childhood: The Search for Complexity and Connection. *Roeper Review*, 26(2), 78-84.
- Johnsen, S. K., & Ryser, G. R. (1996). An overview of effective practices with gifted students in regular education settings. *Journal for the Education of the Gifted*, 19(4), 379-404.
- Kronborg, L., & Moltzen, R. (1999). Tertiary courses in gifted education across Australia, New Zealand and Asia. *The Australasian Journal of Gifted Education*, 8(1), 77-79.
- Lewis, E., & Milton, M. (2005). Attitudes of teachers before and after professional development. *The Australasian Journal of Gifted Education*, 114(1), 5-14.

- Moltzen, R. (1998). Maximising the potential of the gifted child in the regular classroom: A professional development issue. *Gifted Education International*, 13(1), 37.
- Parliament of the Commonwealth of Australia. (1988). *Report of the Select Committee on the Education of the Gifted and Talented Children*. Retrieved 1/12/05 from <http://www.alphalink.com.au/~drednort/sscchapter7.html>
- Parliament of the Commonwealth of Australia. (2001). *The Education of Gifted Children*. A report of the Senate Employment, Workplace Relations and Education Committee. Canberra: AGPS.
- Reis, S. M., & Westberg, K. L. (1994). The impact of staff development on teachers' ability to modify curriculum for gifted and talented students. *The Gifted Child Quarterly*, 38(3), 127-135.
- Rosselli, H. (1993). Process differentiation for gifted students in the regular classroom: Teaching to everyone's needs. In C. J. Maker (Ed.), *Critical Issues in Gifted Education Programs for the Gifted in Regular Classrooms* (Vol. 3, pp. 139-155). Austin, TX: Pro-Ed.
- Shaywitz, S. E., Holahan, J. M., & Freudenheim, D. A. (2001). Heterogeneity within the gifted: higher IQ boys exhibit behaviours resembling boys with learning disabilities. *Gifted Child Quarterly*, 45(1), 16-23.
- Tomlinson, C. A. (1995). Deciding to differentiate in middle school: One school's journey. *Gifted Child Quarterly*, 39(2), 77-87.
- Tomlinson, C. A. (2005). Travelling the road to differentiation in staff development. *Journal of Staff Development*, 26(4), 8-12.
- Westberg, K. L., & Archambault, F. X. (1997). A multi-site case study of successful classroom practices for high ability students. *Gifted Child Quarterly*, 41(1), 42-51.
- Westberg, K. L., Archambault, R., Dobyys, S., & Slavin, T. (1993). The classroom practices observation study. *Journal for the Education of the Gifted*, 16(2), 120-146.
- Whitton, D. (1997). Regular classroom practices with gifted students in grades 3 and 4 in New South Wales, Australia. *Gifted Education International*, 12(1), 34-38.
- Vialle, W., & Quigley, S. (2002). Does the teacher of the gifted need to be gifted? *Gifted and Talented International*, 17(2), 85-90.

Address for Correspondence

Tracy Taylor
Edith Cowan University
2 Bradford St,
Mount Lawley, WA 6050

Email: ta.taylor@bigpond.com.au

Biographical Notes

Tracy Taylor is a Sessional Tutor in Literacy Education and PhD student at Edith Cowan University, WA. Her interest in gifted education was motivated by experiences as a primary teacher attempting to cater for gifted students in regular classes. This led to a Master of Special Education (Gifted) undertaken with Wilma Vialle at Wollongong University, NSW. Mrs Taylor's current research focuses on the needs of gifted students in regular classes, the ways in which teachers are able to do this effectively, and the pre-service training that teachers need to provide an appropriate instructional environment for gifted students.

Dr Marion Milton is a Senior Lecturer in Literacy Education at Edith Cowan University. She has experience in teaching Gifted Education and has published numerous journal articles in the areas of teacher training and provision for students with diverse needs, such as learning difficulties, gifted and students with English as a second language. She is currently on the research advisory committee of a major government funded study being undertaken by ACER, and was recently on the editorial board of the Australian Journal of Language and Literacy.

This article was first published in the Australasian Journal of Gifted Education Vol 15, (1) 2006 and is reprinted by permission.