

Research Theses on Giftedness and Creativity

Undertaken in Australian Universities

2008

Creativity and Gifted Education Theses

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Creativity Theses

Title	Motivation and creative achievement : exploring a positive relationship between intrinsic motivation and extrinsic influence.
Author	March K
Degree	MGiftEd
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	2002
Abstract	There are few descriptions in the literature on creativity and motivation that explore the positive effect of extrinsic influences on the creative process. This study, based on creatively achieving individuals from a variety of domains across the arts and sciences, explores the notion that extrinsic factors can be less inhibiting than previous research would suggest and that their existence and influence may be essential for prolonged creative endeavour. The individuals in this study clearly demonstrate both the necessity of extrinsic influences in their creative process, and the employment of particular thinking strategies to deal with such influences, which serve to promote continued production and success in their creative fields.

Title	The relation of some personality and ability variables to creativity and academic achievement.
Author	Gilchrist M B
Degree	PhD
Institution	UNIVERSITY OF MELBOURNE
Year	1970
Abstract	Not provided

Title	The role of creativity in the education of underachieving secondary students.
Author	Lane R S
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1994
Abstract	Underachievement is a difficult and imprecise concept to measure and complex reasons and experiences trigger disengagement from the process of schooling. Those students that do not gain the opportunity to develop a feeling of success and achievement ultimately become alienated, and thus fail to realise their potential. Success in schooling comes when students are engaged in the learning process, and stimulated in ways that allow them to gain a sense of achievement and self worth. A critical but creative examination of existing school resources can result in student turnaround and generally improve both the learning environment for the student and the working environment for the teacher. The study found that the participants desired changes to the school

	with adjustments to both the organisation and the basic aims of the staff. This places a responsibility on curriculum planners to be aware of the possibilities which could be generated by more innovative programming and a closer liaison with the creative arts and special needs personnel. Ideal practice would be for all students to have the opportunity to think and be creative across the whole curriculum and that those teachers involved in creative programming can sustain the effort over time.
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Title	The role of inquiry, creativity and conflict in education.
Author	Waite I P
Degree	MEd
Institution	UNIVERSITY OF NEW ENGLAND
Year	1992
Abstract	A dedicated commitment to the status quo is the single factor that unites politicians, bureaucrats, teachers and parents in their educational endeavours. The children in our schools absorb the same cherished values and set their faces against the older generation for their conservative stance in the face of such progress as we have never seen before. Development is at a standstill and change is purely cosmetic. Private enterprise is growing fat on the proceeds of the brightly packaged diversions that are being sold to protect the status quo and society as we know it is stagnating. The marvellous theories of the last sixty years seem futile and ineffective. But the solution is not to go back to the drawing board of the curriculum planning office, but to the arena of educational praxis in the classroom. Once there, however, we are not to take the easy way out by taking our place with the spectators, shouting support and advice to the participants, and all the while keeping a safe distance from the contest. We must be prepared to assume the role of the true theoreticians. This thesis intends to enter into this process of educational praxis by aiming to provide timely advice and strategies for the future viability of the education system. The application of the elements of inquiry, creativity, and conflict to educational endeavours will help educationalists develop a viable plan for the future community that will enliven society.

Title	Labelled and languishing : perspectives of gifted and creative secondary school students.
Author	Fitzpatrick D R
Degree	MEd
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	2005
Abstract	This study aimed to utilise a qualitative, postmodernist research approach in the teaching-learning area of school education in order to investigate adolescent students' constructs of giftedness, creativity and creative writing. Case studies of thirteen students who took a Year 10 course in Creative Writing in a Western Australian government, rural secondary school engendered a cross-case analysis. Some of the students had been identified as

	<p>gifted or talented in terms of government school guidelines; all considered themselves to be creative. The study is innovative in that it aimed to elicit the perspectives of such fifteen to sixteen year old students. The study related student perspectives to academic literature. It generated information about the interrelationships of the main constructs of giftedness, creativity and creative writing. It also generated perspectives and recommendations on issues concerning the identification of, the provision for, the monitoring of, and the inclusivity of gifted, talented and creative students. The study generated implications for five areas in education: Aims and Policy, Curriculum Development, Educational Administration and Management, Teaching and Learning, and Teacher Education. The study made recommendations for further research, especially in the area of Teacher Education.</p>
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Title	Creativity and under-achievement: a study of the 1992 Foundation Studies Students at Victoria University of Technology (Footscray Campus).
Author	New B C
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1993
Abstract	<p>This study was undertaken to investigate students enrolled in the 1992 Foundation Studies course at the Victoria University of Technology, Footscray Campus. This was a one year bridging course, for students whose Anderson Scores has been insufficient to gain them a place on a degree course. Despite their low scores, many of these students gave an impression of good academic ability, coupled with a divergent, creative approach to their work. The investigation sought to establish: if they really were very able; and if any academic underachievement thus substantiated could be explained by the individual's creativity. As a basis for this study, a selective review of the vast literature on creativity was undertaken, with emphases on the research into the personality traits of creative people, the effect of environmental influences on the development of creativity, the interaction of intelligence and creativity and the relationship between hard work and creativity. The students were investigated for: ability; academic achievement; creativity; self esteem; personality; and personal histories. Although this testing confirmed lecturers' perceptions of the students' good academic ability, it also indicated that creativity was not a significant factor in the academic underachievement of the majority of the students. It did appear, however, to be implicated in the academic under or overachievement of a minority of the students. For most of the students, issues of self esteem appeared to have been central in determining academic performance.</p>

Title	Development of a unified theory : giftedness, evolution and integrative intelligence.
Author	Clarke J S
Degree	MGiftEd

Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	2000
Abstract	<p>The most fundamental problem of gifted education is the absence of a unified theory to explain the physical phenomena of gifted consciousness. However, this lack of theory is predicated by the absence of a physical theory which explains the evolutionary emergence and structure of consciousness itself. This thesis addresses this critical void in physical knowledge by developing Unitive Theory as a physical deductive theory of evolution from which reflective consciousness self consistently emerges. The psychological structures and processes of giftedness may be then framed within a deductive 4-dimensional evolutionary continuum. The structural self-consistency of unitive theory is further applied to explain intelligence differentiation; the complementary construction of knowledge and meaning; the predictive structure of conflict; and to verify the structural continuity and organisational self- similarity in both physical and psychological evolution. The advanced cognitive structures of giftedness are predicted and explained through the evolutionary structure identified by unitive theory. Unitive theory is verified as a deductive physical evolutionary theory, including biogenesis and consciousness, by a series of major scientific discoveries which transform the current educational and scientific worldview: 1) The identification of the initial numeric structures and processes of the nested evolutionary continuum, which thereby explain the origin of the laws of physics. 2) The discovery of cumulative systemic resonances in physical systems: solar system atomic system & molecular DNA-RNA system, and thereby disproves current theories which assume that random and accidental processes determine structural evolution. 3) The derivation of the numeric values of GUT unification & Planck energy levels from first principles. 4) The discovery of the reciprocal and geometric relationship between coupling strengths of electronuclear forces and unifying energy levels, which thereby confirms the legitimacy of scientific attempts to formulate a complete unified physical theory. 5) The discovery of correlations between planetary distancing and GUT & Planck unification values, confirming structural evolution as a nested evolutionary continuum. 6) The identification of thermal resonances between earth planetary positioning and human brain temperature; Planck energy and cosmic background radiation. 7) The discovery of cumulatively reciprocal relationships in planetary systems. 8) The discovery of the numeric evidence to confirm that bifurcation processes operate in spatial organisation and planetary system formation. 9) The discovery of progressive dimensional emergence, which predicts and explains evolutionary directionality and differentiative and integrative development. 10) The demonstration of how the resonant self organisation of attractive matter and radiant energy form an integrative and complementary evolutionary system.</p>

Title	Family and school correlates of adolescents outcomes.
Author	Raw J S
Degree	MEd
Institution	UNIVERSITY OF ADELAIDE

Year	1988
Abstract	This study examined relationships between family and school environments and a number of outcomes for adolescents attending independent schools. In particular, associations were examined between adolescents' perceptions of family and school environments and measures of their creativity, morality and self concept. Six independent schools from the Adelaide metropolitan area were chosen for the study. The sample included 312 Year 11 adolescents, 158 girls and 154 boys. The schools were chosen to provide a diverse sample with respect to religious affiliation, single sex coeducation, and socioeconomic status of families. The study supports prior research which has shown that while family environment is associated with more variance in outcomes when compared with the school environment, certain school environment variables are related to significant and educationally meaningful amounts of variance in school related outcomes.

Title	Changes in student learning and development in art production across grades and over time at secondary school level.
Author	Touloumtzoglou J
Degree	PhD
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	2002
Abstract	Areas of learning where performance is measured through systematic and responsible assessment can contribute to the conceptualisation and valuing of art education through the provision of evidence of learning and development of artistic skills. There is a need for measurement to be undertaken in assessment in art production, on the basis of a shared symbol system, that allows for detailed classifications of visual art works. For this purpose, the Aesthetic Judgement Scale (AJS) was developed in this study to measure secondary school students' performance in art production, for assigning quantitative specifications both singly and in combination to corresponding magnitudes of art work. A general theoretical model was formulated that provided the structure of the numerical relation among the measures assigned to the art works. This model was established and tested for comparative purposes and for the better understanding and interpretation of the AJS scores. In devising this measurement strategy, the assessable properties or magnitudes of the visual art objects and the rule for assigning degrees of their magnitudes were specified. The validation of the AJS measurement model was undertaken through an investigation of its internal structure and the association of the construct being measured to external predictors of student performance. With respect to the internal structure of the AJS, a two-level hierarchical model was proposed as best reflecting the underlying constructs measured by this instrument. This implied that a second-order artistic aptitude factor indirectly measured by the observed variables affected three more specific first- or lower-order factors. These three inter-correlated first-order factors included the art elements, formal properties and symbolic level factors. The model also included four additional observed variables reflecting an alternative form of the higher-order factor that were represented by an exogenous component, labelled the composite factor. Hence, artistic production was shown to involve a general underlying trait as well as lower order factors, indicating that the calculation of a total score in

	<p>addition to sub-scores that provide more specific information about students' performance in the identified sub-domains of artistic production, were possible. Use of the AJS in this study demonstrated that the instrument can: (a) discriminate between different levels of performance; (b) make meaningful comparisons; and (c) measure relative change in student development and learning between assessment occasions. Furthermore, several instruments were also employed with the aim of assigning numerical values to constructs hypothesised as being related to student performance in art production. Of these measures, variables that were identified as having significant effects on the AJS scores, enabled clearer interpretations to be made of student performance in art production, substantiating further the usefulness and meaningfulness of the particular assessment procedure. Moreover, results presented in this study, provided evidence of a relationship between AJS measures and student level characteristics, domain-relevant abilities, as well as affective and conative variables further supporting the construct validity of the scale. The temporal stability of these relationships across grade levels and between assessment occasions assisted in contributing to the validity of the AJS measures. Teacher ratings obtained from a single public secondary school were also compared to ratings obtained on the AJS, on the basis of the meaningfulness and quality of the information provided about students' learning and development over time and across grades. The findings illustrated the practical significance and usefulness of the AJS for measuring gains in student performance in art production and in identifying students' strengths or weaknesses, compared to teacher marks, which focused on relative rather than absolute marking performance and failed to measure such increments in learning and development. The results derived from the multivariate and multilevel analyses undertaken provided extensive evidence that performance in art production is best represented by a multidimensional and multilevel model. Significant teacher effects were found on performance in art production. Student characteristics such as gender and intellectual potential were found to be significant predictors of level of performance. Student attitudes were shown to impact greatly on performance. Greater home learning provision and favourable parental attitudes towards the arts also appeared to be associated with higher levels of performance in art production. Domain-relevant abilities such as visuospatial abilities, visual aesthetic sensitivity and to some extent figural creativity were shown to contribute significantly to performance in art production. The aim of this study was to improve validity, reliability and credibility in measuring student performance in art production, and thereby increase the positive impact of assessment in the visual arts discipline. The development and empirical validation of the Aesthetic Judgement Scale offer an alternative performance-based approach to assessment of art production. This assessment strategy for monitoring student progress in art production, is a useful means of demonstrating whether teachers and students have met their educational goals, as well as for identifying areas of strength or weakness. In addition to measuring student learning and development in art production, the AJS may be used to identify implicit learning outcomes of art production for the specification of curriculum objectives, and the organisation of instruction.</p>
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Title	A cognitive model for understanding creative thinking.
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Author	Yashin-Shaw I
Degree	PhD
Institution	GRIFFITH UNIVERSITY
Year	2001
Abstract	<p>This research proposes a model for creative thinking which is initially derived from an amalgamation of the creativity literature and the cognitive psychology literature, and is refined from protocol data. The aim of this research is to investigate and explain the nature of cognitive activity during creative problem-solving in an authentic context. A review of the creativity literature reveals the limitations of existing conceptualisations of creativity, in particular, the linearity of thinking as it progresses or cycles through various stages during the creative thinking process. It is argued that the limitations may be addressed through the inclusion and application of a hierarchical representation of thinking which is commonly accepted in the cognitive science literature but absent from the creativity literature. The reconceptualised, theoretically derived model which is posited, incorporates elements from both literatures, namely the hierarchical nature of thinking from cognitive science, as well as the opportunity for an ongoing revisiting of concepts, as represented by the cycling of thinking, from the creativity literature. In order to test the model, a fine-grained scrutiny of cognitive activity was needed. To this end the research methodology was based on an longitudinal, idiographic model which investigates a single situation in exhaustive detail. Protocol data were gathered from a subject engaged in authentic problem-solving on two occasions four and a half years apart. The data therefore provide information at two levels of expertise. The data were transcribed, segmented and analysed in two ways, according to the category of thinking and cognitive procedure enacted, to reveal cognitive activity on a micro-level. This was done using the proposed model and its associated taxonomy. It was found that the overall structure of the theoretically derived model was robust. However some modifications were needed to the sets of procedures characterising each category of thinking in order to comprehensively describe the creative problem-solving activity reported in this research. Therefore the final model presented represents a synthesis of theoretical and protocol derived procedures. The analysed data were numerically coded for the purposes of undergoing descriptive statistical analysis. The findings reveal that creative solutions evolved through the iterative and interactive deployment of cognitive components and not in a linear or cyclical way as proposed by a number of other models explaining creative thinking. Cognitive categories and procedures were deployed with varying frequency at different times during the problem-solving process according to task demands. However no category of thinking had exclusive association with any particular stage of the process. Rather, solutions were 'built up' as a result of cognitive activity switching among the categories of executive control, generation, exploration and evaluation and their characteristic procedures. The longitudinal design of the study provided information about the cognitive indicators associated with the development of expertise in creative problem-solving in authentic contexts. The proposed model was found to be sufficiently robust to explain cognitive activity at both levels of expertise. The development of expertise in creative problem-solving is characterised by the same indicators of problem-solving in general with the addition of the deliberate maintenance of high cognitive load imposed by the</p>

	search for novelty.
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Title	A comparative study of creative problem solving and traditional skill based methods of instruction in Queensland technology education classrooms.
Author	Case D J
Degree	MIndEd
Institution	UNIVERSITY OF NEWCASTLE
Year	1996
Abstract	<p>The introduction of Technology Studies in 1991, with it emphasis on creative problem solving through design, challenge the philosophies and teaching styles of those teaching traditional manual skill based Manual Arts subjects in Queensland. One hundred and thirty four Year 11 students, from three Queensland schools, studying one of three subjects in the domain of 'technology education' participated in the comparative study to establish the relative creative efficacy of Technology Studies and Manual Arts as measured by Cohen's 'How Creative Are You' test instrument. A pretest/posttest quasiexperimental design was selected in which instruction in: Technology Studies was classified as experimental 'Treatment A' (Subject a); Manual Arts was classified as experimental 'Treatment B' (Subject b); and Graphics was classified as the experimental ' Control Group' (Subject c). Potential confounding factors such as variations in student ability across target groups and schools were either controlled or taken into account in the analysis. Single and two factor analysis of variance of the data collected revealed that there was no significant difference in the mean creativity score gained between treatment groups albeit significant gain in creativity was observed in each treatment group. In conclusion, the author cautions against ascribing to Technology Studies a greater potential for developing creativity in students than the more traditional manual skill based teaching methods associated with Manual Arts. While the limitations of the study prevent the conclusion from being generalised across the public and private education sectors in Queensland at this time, there is sufficient evidence to justify further research in this field. If the outcomes of this research are generalised through further research, the author conjects that the lack of significant difference in creativity gain between the treatments may be due to either: the publicly unrealised creative characteristics of the traditional manual skill based style of Manual Arts; and/or the lack of appropriate inservice training of teachers of Technology Studies to ensure that the perceived creative advantage of design and problem solving based instruction is realised.</p>

Title	Creative spirit in classroom music education.
Author	King G
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	2005
Abstract	Nurturing creativity by responding to students' unexpected initiatives requires teachers themselves to be models of spontaneity and improvisation. Thirty-one

	<p>anecdotes were collected from practitioners of the Orff Approach to classroom music education and discussed online, uncovering a variety of responsive strategies that resulted in increased collaboration and engagement. The study drew on the Social Constructivist models of education and creativity expounded by Vygotsky, Csikszentmihalyi, Gardner and Anna Craft, and on the epistemology of Wittgenstein as Alice made sense of her Wonderland conversation with Humpty Dumpty. Practical solutions were offered to an apparent dilemma, that nurturing student creativity appears to require a state of anarchy to exist in the classroom. Four themes emerged from the data. These documented teachers' insightful responses to classroom 'shenanigans' and aggression, the benefits that followed when teachers were willing to 'go the extra mile', the desire of teachers to create and sustain a cooperative classroom atmosphere and the importance of linking classroom music activities to children's lives in a meaningful way. The study findings suggest that responsiveness is an important key to nurturing independent creative thinking.</p>
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Title	Creativity and arts education.
Author	Chapman L R
Degree	MEd
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	1995
Abstract	<p>'Creativity' is a term which occurs in academic articles on education and in Australian government curriculum documents. Despite an extensive debate in the 1960s there is a vagueness attendant upon this term and considerable inconsistency in its application. This is a matter for concern because creativity is an important concept in that aspect of culture which we designate as the arts and it is by that token a significant concept in arts education. The writings of three educational theorists have been important in the discussion of 'creativity': White Olford and Elliott. In the field of arts theory and aesthetics the writings of Maitland, Beardsley and Hospers provide a framework for considering the concept. Out of these writings in the fields of educational theory, arts theory and aesthetics six issues relating to creativity arise. These issues are, the locus of creativity, creativity as problem solving, as novelty, as discovery, as inspiration, and creativity and knowledge. Proceeding from a consideration of these issues and of Degenhardt's three criteria of creativity a set of five criteria of creativity are suggested. The implications for arts education of the six issues and the five criteria move consideration of the concept away from notions of creativity as inspiration or discovery and towards a view of creativity which is based on knowledge of the domain in which it occurs. This leads to a rejection of the notion that creativity is something which can be taught and transferred from one domain to another. The consequence of that is an affirmation of knowledge of any particular domain as the focus for creativity within the curriculum.</p>

Title	Creativity and education : an examination of some current views on the nature of creativity and a discussion of the role and possibilities of creative development in the educative process today.
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Author	Nolan J E
Degree	MEd
Institution	UNIVERSITY OF SYDNEY
Year	1965
Abstract	Not provided

Title	Creativity and embodied learning : a reflection upon and a synthesis of the learning that arises in creative expression, with particular reference to writing and drama, through the perspective of the participant and self organising systems theory.
Author	Wright D G
Degree	PhD
Institution	UNIVERSITY OF WESTERN SYDNEY
Year	1998
Abstract	Through a discussion of personal experiences of creativity and learning this thesis looks at the way in which drama education constructs opportunities for learning. Important in this discussion is the relationship between participants in the learning process. Accordingly, the author uses constructivism and self-organising systems theory to further the understanding of the way in which individuals and societies construct their own learning. Important in this process is the self-conscious experience of the learner. The notion of being 'in learning' rather than outside of and observing the learning is central. This consciousness facilitates the creation of meaning. That meaning plays a role in determining the manner in which further participation in learning occurs, hence further learning. This emphasises the process of learning over the product of learning. The function that language and emotion serve in this process also deserves consideration. The author argues that, like learning, we live 'in language' and 'in emotion'. This perspective upon process has a considerable impact upon the way in which we make meaning and the way in which we approach learning. Questions surrounding a consciousness of participation bring the senses, the feelings, the emotions and other physical experience to the fore. They require, in turn, that the learning of the body be considered. Embodied learning, it is argued, is insufficiently acknowledged and insufficiently theorised in drama education. Considerably more attention is paid to the body in contemporary performance theory, though not specifically in relation to learning. Through bringing together constructivism, systems theory, drama education and contemporary performance theory the author argues for a greater recognition of the relationship between the body and learning.

Title	Creativity and play.
Author	Wiley K
Degree	MEd
Institution	ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY
Year	1996

Abstract	<p>This is a qualitative study the conclusions of which rely on a detailed collection of observations and descriptive data. The major undertaking of this project was to look at children's potential to be creative, to transform their own reality of the world into new and interesting ideas, and to measure it. The children were presented with varied experiences which allowed for verbal and nonverbal responses and encouraged physical as well as cognitive skills. All experiences had the potential for a multitude of responses, hence for many transformations to occur. The activities were chosen because they contained elements of fun and potential play. The experiences presented to the children also contained challenges of different degrees, for which the children demonstrated their cognitive skills, transformational ability and playful behaviour. All the subjects demonstrated some creative potential, because all had the ability to transform ideas by developing perceptions which had an element of uncommonness. Not all children performed their transformations at the same rate, level of quality or interest. Some children showed strong motivation to succeed, and they also enjoyed the challenges. Working together with another child, or in a small group, seemed to be an incentive to greater production of transformations for some children. In this project, not all children demonstrated 'playfulness'. However, the majority of children were playful in most experiences, and this project shows that greater playfulness is related to greater ability to transform. The 'playful' children demonstrated more humour and enjoyment in the company of the investigator even when they were not engaged in the experiences. The playful subjects were also more positive about their school life.</p>
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Title	Creativity in literacy : making meaning in the middle years.
Author	Walters F
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	2004
Abstract	<p>Literacy is often described as either a social phenomenon or a functional one; it is rarely viewed as an imaginative or creative phenomenon. Yet the processes involved in the development of literate identities are akin to role-play; readers and writers try on different stances as they engage in various ways with diverse texts, and this requires a capacity for imaginative projection. A 'creative age' has been proclaimed in Western societies. Creativity and high levels of literacy are prized for their perceived capacity to fit people for the anticipated rapidly changing circumstances of the future. However, while vast resources are devoted to developing literacy in education, aspects of schooling may discourage creativity; and, indeed, the kind of literacy (or 'literacies') required for this new era. This thesis argues that much might be gained by reconsidering imagination and creativity for educational purposes. It recounts psychological approaches to studying creativity, which, despite limitations, have led to a model that is useful for identifying the 'locus of creativity' - a systems model of creativity. This model is re-evaluated so as to theorise a systems model of student creativity. The term 'literacy' has come to signify many different things in education, and the complexity of the phenomenon is discussed to show how imagination and creativity are integral to it. An acknowledgment of their role offers exciting possibilities for middle years curriculum in particular. This</p>

	investigation into the place of imagination and creativity in literacy involved the analysis of 'official' curriculum documents and of two case studies: one Year 9 and one Grade 5/6 teacher and their English/literacy classes. This permitted observations of the ways in which curriculum is enacted in classrooms. The fieldwork revealed data about common constructions of creativity, and where it inheres in literacy.
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Title	Creativity in problem solving : uncovering cognitive and non-cognitive systems of reasoning in the solving of novel mathematics problems.
Author	Aldous C R
Degree	PhD
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	2005
Abstract	Two questions lie at the heart of research conducted in this thesis. The first 'From where do new ideas come?' is intrinsic to understanding the mystery of creativity and the solving of novel problems. The second, 'Can feeling be used to help navigate a path to a solution in a novel mathematics problem solving event?' seeks to identify and describe non-cognitive as well as cognitive systems of reasoning used in solving novel mathematics problems. Given the tendency for discourses in both cognitive psychology and mathematics education to target the cognitive and overlook the non- cognitive component, the answers to these and other related questions, represent both a potential advance and challenge to each field of endeavour. A series of cognitive and non-cognitive elements identified from verbal data collected from five protocols is used to construct a conceptual framework of creative problem solving. These elements include the visual-spatial and linguistic circuits of the brain, conscious and non-conscious mental activity and the generation of feeling in listening to the self. Through the development of a self-report instrument and the involvement of exploratory and confirmatory factor analyses triangulated in three structural equation modelling programs, a set of scales is produced. These scales map to components of the conceptual framework, making the framework operational on a large scale. The process scales are a Strategic approach, a Free-flowing approach, a Spatial-verbal approach, a Feeling approach and a Systematic approach to reasoning. Finally, using the conceptual framework as a process model of creativity, a comprehensive model of creative problem solving that also incorporates the person, product and environment dimensions of creativity, is developed through the construction of a causal model. The structural relationships arising between variables within the comprehensive model are tested in two novel mathematics problems solved by 405 students in the Mathematics Challenge for Young Australians. This is done initially with Partial Least Squares(PLS) path analysis and subsequently with maximum likelihood, multigroup modelling procedures using Analysis of Moments Structures (AMOS) software.

Title	Creativity: its enhancement in beginning teachers.
Author	Whitton D

Degree	MEd
Institution	CHARLES STURT UNIVERSITY - MITCHELL
Year	1993
Abstract	The possibility of the enhancement of creative thinking skills of beginning teachers was researched. The Torrance Test of Creative Thinking, Figural Form, was used as the pretest and posttest instrument to assess the variance in creative thinking skills. This research was designed to determine what effect the methods of teaching had on the creative ability of the students within the Faculty of Education at the University of Western Sydney, Macarthur. Three groups were used in this research, first year primary and early childhood students and second year primary students. A total of 251 students participated throughout the second semester in 1992. The comparison was between the traditional structured lecture tutorial presentation, problem based and situational based learning. Following a treatment period of twelve weeks it was found that the situation based learning enhanced creative thinking more than either problem based learning or the traditional lecture tutorial structure. The pretest and posttest total scores had been compared using an analysis of variance, and the subtests scores analysed using an analysis of covariance. In particular four of the subtests showed significant statistical differences for the experimental group.

Title	Creativity under the glass ceiling : a study using a contextual theory of creativity as a framework.
Author	Botticchio M
Degree	EdD
Institution	UNIVERSITY OF WOLLONGONG
Year	2006
Abstract	The purpose of a study of creativity under the glass ceiling was to make a contribution to a viable theory of creativity. Six case studies were constructed in which each of six women talked about an individual experience of creative work in a distinct domain. These data were not fully included in the early development of a contextual theory of creativity. The initial proposal of a contextual theory of creativity was developed by asking questions of visibly creative people. Because women were not found in sufficient numbers at the top of many domains or professions, these important questions were not asked of them. When women's data appeared in the research they were not valued. In this way contextual theory failed to show a complete understanding of creativity phenomena and was not tested on diverse populations. The six stories came from interviews with women who demonstrated a serious commitment to their work in different domains. The interviews and the analysis were structured on the contextual framework developed by Csikszentmihalyi and Gardner. The cases challenged the contextual view of creativity by using the contextual framework with women and by trying to determine whether the contextual theory could accommodate these and other different experiences of creativity. Analysis of the case studies showed that the women's experience of creativity was captured and explained by the contextual framework. The new dimensions of creativity discovered by this research extend the theory, enabling greater flexibility in further testing on other

	populations and situations. This study of creativity under the glass ceiling offers support for a social theory of creativity that is inclusive of varied experiences of creative enterprise. The theory, made inclusive by this process, provides a more comprehensive understanding of creative phenomena.
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Title	Drama education secondary school playbuilding : enhancing imagination and creativity in group playbuilding through kinaesthetic teaching and learning.
Author	Lovey S C
Degree	PhD
Institution	UNIVERSITY OF WESTERN SYDNEY
Year	2003
Abstract	This research investigates the drama education form of playbuilding, and particularly the phenomenon of kinaesthetic teaching and learning which is aimed at enhancing group imagination and creativity. Playbuilding is a process whereby groups of students devise and act in their own plays using a variety of dramatic elements and theatrical conventions. This research explores the playbuilding learning experiences of two secondary school drama classes and the playbuilding teaching experiences of four drama teachers. The research underpins current drama and theatre education praxis that relates to learning through embodiment, symbolic creativity, and the purpose and function of metaxis in a secondary drama classroom. The study relied on qualitative research grounded theory techniques, focus groups, student workbooks, classrooms practices, closed questionnaires, face to face interviews and videotaped materials. Central to this research are the phenomena of imagining and creating that occur in secondary drama playbuilding groups learning through a group kinaesthetic paradigm. This study concludes that there is a paradigm which identifies secondary drama students as group kinaesthetic learners, and that kinaesthetic teaching and learning practices open up pedagogic spaces in playbuilding that significantly improve the effectiveness of group embodied learning in drama education.

Title	Enhancing creativity : strategies implemented in the senior secondary visual art classroom.
Author	Corcoran K
Degree	PhD
Institution	GRIFFITH UNIVERSITY
Year	2006
Abstract	This thesis examines issues involved in teaching for creativity in a senior secondary school Visual Art classroom. The study begins where professional knowledge is enacted within the classroom. Through a focus on this, the study represents a close examination of the role of the teacher as researcher. This approach is informed by a knowledge generated from reviewing literature in the fields of creativity, teacher pedagogy and strategies that enhance creativity and action research. Using the findings of the study, the author argues that if teachers are to enhance their students' creativity, they must engage their students in strategies that centre on social interaction by creating an environment that encourages motivation and facilitates the creative process. To

	<p>teach for creativity, teachers need to embed strategies that offer a structure by which students can be guided through problem solving processes within the social interaction of the group, and therefore, generate enhanced creative ideas for their art works. Creativity is broad in its scope and difficult to define. Consequently, there is no single, clear indication of how it can be clearly understood, let alone improved. However, relevant theorists do propose models that could be applied in the Visual Art classroom. While a strong focus has been directed towards the importance of internal determinants on creativity, much less emphasis has been placed on external determinants; investigations have focused on research into creative persons, but there has been little appreciation for contextual situations or circumstances that influence creative behaviour. In more recent years, the study of the social psychology of creativity has endeavoured to understand and explain how particular social and environmental conditions influence the creative behaviour of individuals. The work of Amabile was significant in influencing the perspective of this study in relation to motivation and aspects affecting creativity. Amabile argued that there are certain influences that when associated together contribute to enhancing creative performance. Amabile identified the social environment, task motivation, domain related skills and creative related processes as being paramount in the enhancing of creativity. The concept that creativity can be taught and improved by the alliance of certain factors is the theoretical framework for this study. Research into teaching strategies that specifically promoted positive social environment, that generated motivation and enhanced learners' creative thinking was undertaken. This study investigates the implementation of the strategy of cooperative learning and embedded within this context, the strategy of the Parnes Creative Problem Solving model. These strategies combined, acted as the catalyst for adolescent senior secondary students to develop their creative abilities. Research also focused on teachers' pedagogy and the characteristics that make a 'good' teacher in the classroom. Extensive studies have identified the importance of the teacher and the role they play in enhancing a students' creativity. The participants were senior secondary Visual Art students from two different schools. Evidence was drawn from the teaching and learning of Visual Art in which there were twenty four students involved in the first spiral in 2000 and another fifteen students involved in the second spiral in 2001. A further eleven students were involved in the finalizing of spiral two in 2003. A spiral is defined in this thesis as the structural device that groups together the planning, the investigation and reflection of issues viewed by the teacher that require 'change' to enhance the students' creativity. The study does not offer any generalisations but, rather provides insights into the productive engagement of post compulsory Visual Art students productively in the creative learning process. The study does raise concerns that, for creativity to occur, teachers have to be willing to relinquish control in their classrooms and be more open to risking their established beliefs about effective teaching by introducing strategies aimed at enhancing their students' creativity, the outcomes of which may be as much about their own learning as that of their students. The study offers a methodology for the critical examination of teacher practice in the Visual Art classroom that may be useful to teachers from different subject areas of the curriculum who strive to enhance the problem solving of their students.</p>
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Title	An evaluation of approaches to teaching creative and divergent thinking.
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Author	Hannaford J
Degree	EdD
Institution	MACQUARIE UNIVERSITY
Year	2001
Abstract	<p>The focus of the research was a comparison of interventions designed to develop students' creative and divergent thinking within the primary classroom. Two approaches were used: an infused approach that integrated creative and divergent thinking into the existing curriculum, and a stand-alone approach. The research was conducted with grade 5 primary school students in a state primary school located in the western suburbs of Sydney, in the state of New South Wales, Australia. Grade 5 was selected because previous research indicated that there is a decline in creative and divergent thinking at this age level. As there were insufficient grade 5 classes in the school to allow two classes for each intervention, data were collected over a two year period, giving 140 subjects in the sample. The infused approach was taught in the context of the social science area, and the stand-alone approach used Edward de Bono's Six Thinking Hats for Schools and CoRT Thinking. To investigate the effect of the intervention, a 2 (gender) by 3 (treatment) by time (2) MANCOVA was performed. Gender and treatment were independent factors and time a repeated measures factor. The Torrance Tests of Creative Thinking (TTCT) were used as an outcome measure, with Form A as the pre-test and Form B as the post-test. In the replication, the range of measures was expanded to the collection of examples of students' creative writing and drawing as an indicator of change in creative production rather than divergent thinking, and the inclusion of a measure of the affective domain, namely the MY Class Inventory (MCI). The study showed that the effect of an intervention, whilst mild, was consistent in that the groups receiving interventions improved whilst the control groups declined. This research did not support however, a clear-cut superiority of one intervention over another. Although there were significant time by treatment interactions on the figural measures, the main feature, however, was again the decline in performance over time for the control groups. One of the most significant findings was that intervention effects were confounded by gender. This study's male students were verbally less creative than their North American peers but results indicate the interventions helped them catch up with their female counterparts. It was found that in the verbal domain, the stand-alone approach favoured male students to a greater extent than female students. Analysis of the creative production measures used in the replication gave results consistent with the results from the TTCT. Results from the MCI showed little effect in regards to creative and divergent thinking but the issue of classroom climate is worthy of further investigation. Given the overall decline of the control groups and the minor differences between the two treatments, it appears that an intervention can improve students' creative and divergent thinking but the nature of the intervention, whether infused or stand-alone, does not appear relevant. It is argued that what is important in any intervention is time and the qualities of the classroom that are associated with teaching creative and divergent thinking.</p>

Title	Family contexts for nurturing young children's creativity.
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Author	Tennent L J
Degree	MEd
Institution	QUEENSLAND UNIVERSITY OF TECHNOLOGY
Year	1995
Abstract	<p>This study was concerned with the examination of several environmental features, that are considered to be influential in the development of young children's creativity. The study was conducted in two phases. In the first phase of the study, a sample of 121 mothers of children aged 4-6 years completed a questionnaire on specific aspects of the environments they provided in the home, their valuing of particular personality characteristics in children, and their valuing of self-directing and conforming behaviours in children. Factor analyses revealed that most mothers provided home environments that could be considered nurturant of creativity and valued highly those personality characteristics that have been associated with the nurturing of creativity. Mothers also valued the behaviours that were thought to be reflective of the encouragement of self-direction in child behaviour. Maternal education level, occupational level, and occupation status were found to be related to these values and practices that nurture creativity both in terms of the characteristics in children that mothers prefer and the manner in which family environments are organised. In support of previous research, high levels of education and occupational status were associated with the valuing of self-directing characteristics. The second phase of the study surveyed 72 mothers who had participated in the first phase of research and had agreed to further participation in the research. This phase of the study identified the parenting styles of mothers and examined the links between maternal parenting styles, and the valuing of children's personality characteristics and provision of home environments as measured in the first phase of the study. Analyses revealed that mothers who were authoritarian in parenting style were less likely to provide a home environment that nurtured creativity. The results are discussed in terms of two identified positions on parenting - traditional parenting versus modern parenting.</p>

Title	Gender and performance in dance and games.
Author	Tye M E
Degree	MEd
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	1986
Abstract	<p>The aim of this study was to determine whether any gender differences in task mastery (competence) and social reciprocity (cooperation) were observable in game and dance environments. The relationship between the specific personal attributes of self-esteem, classroom behaviour, locus of control, creativity, cognitive maturity, and performance capabilities was also examined. Thirty three children aged seven and eight years, were observed participating in a game environment and a dance environment, for a period of two school terms. The children were allocated scores for game competence (catching, throwing, rolling, bouncing, striking), dance competence (rhythm, body awareness, spatial awareness, effort, inventiveness), and cooperation in games and dance</p>

	<p>(working individually, with a friend, with any partner, in a small group, in a large group). In addition, the children completed tests of self esteem and locus of control. Measures of cognitive maturity (reading age, and spelling age) and behaviour rating were allocated by the children's class teacher. Results of the study indicated no significant gender difference for game competence but significant differences for dance competence and dance cooperation, and a trend toward a relationship for game cooperation. In all instances where a relationship was indicated, girls achieved higher scores when compared to boys. Significant relationships were noted between creativity, cognitive maturity, and competence in dance. Behaviour rating, self esteem, and cooperation in dance, also exhibited significant relationships. A trend toward a relationship between behaviour rating and game cooperation was also noted. Outcomes of the study, particularly the results pertaining to gender, were felt to be a reflection of the socialisation process as it related to young children. That is, at a young age, boys and girls have equal physical capabilities providing they have been given the same opportunity to develop the necessary skills. In contrast, the same socialisation process was seen to have allowed girls to develop more refined skills relating to the dance components through approval and encouragement of their participation in 'expressive' activities. Boys, on the other hand, could possibly have been discouraged from participation in an activity stereotyped as feminine. Similarly, the socialisation process was felt to be responsible for the higher scores of cooperation for girls compared to boys in each of the environments.</p>
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Title	Growing a sense of place : storythread and the transformation of a school.
Author	Tooth R C
Degree	PhD
Institution	UNIVERSITY OF QUEENSLAND
Year	2007
Abstract	<p>This thesis is premised on the idea that schools can be described as complex self-organizing systems where networks of interacting values mix together as part of a web of dynamic human relationships. For schools to maintain their viability and vitality, it is assumed that they must continue to innovate at the creative edge of chaos. But this is a dangerous and challenging place to be, and even the most resilient of reformers and innovators may become weary if they are not supported. Complex organizations demand and produce change, and this generates not only creativity, but also significant levels of anxiety. This anxiety can easily breed resistance and does not always lead to renewal and transformation. What is certain, however, is that leaders must find ways to deal with both this creativity and anxiety if they are to be successful in initiating and maintaining transformative change that brings benefits to a whole organization. There are growing demands in society and in schools for the formulation of a new purpose for education that offers leaders, teachers and students a way into more sustainable ways of living and learning. This is part of the move towards more ecological and culturally situated approaches to whole school reform where environmental education and sustainability are seen as critical to implementing mainstream educational agendas. How this transition might actually be achieved, is however, anything but clear - more detailed studies that describe how leaders have actually used environmental</p>

education to achieve a vision of sustainability are needed. One such study of whole school reform is presented in this thesis. It provides insight into how an educational leader used Storythread (an arts and place-based approach to environmental education) to move an educational community through a process of profound cultural change. What this thesis proposes, based on insights drawn from a nine year journey of change in a school, and building on understandings taken from a combination of Complexity, Psychoanalytic, Activity and Socio-cultural theory, is that effective leaders must find ways to deal with the creativity and anxiety generated by change by providing the right mix of 'transitional objects' and 'cultural tools' that provide teachers with the 'emotional support' and 'practical mediation' they need to stay engaged. In this case, the principal kept Eco State School willingly balanced on what often felt like the creative edge of chaos as teachers experimented with new forms of place-based teaching and learning. In this way, the principal created a 'safe space' where teachers felt free to experiment and a 'practical space' where they could begin to master new forms of practice. What emerged almost spontaneously from this, was a re-vitalized and invigorated learning community.

Title	Improving student learning in civics and citizenship education through professional learning communities.
Author	Tudball E
Degree	PhD
Institution	MONASH UNIVERSITY
Year	2005
Abstract	This thesis aimed to develop understanding of how teachers in two 'professional learning communities' (PLCs) worked to develop their teaching practice and improve their students' learning in civics and citizenship education (CCE). The study investigated the structure, characteristics and functions of the PLCs, and tested the hypothesis that PLCs can influence the improvement of student learning in CCE. In each of the two detailed case studies, the operation of the PLC, the teachers' practice, the students' learning, and whole school and classroom approaches in CCE were observed, documented and analysed. The study investigated the extent to which each community achieved the enhancement of student learning, and assessed what factors were influential in this process. This study found evidence in both of the case study schools that the collaborative efforts of teachers within the PLCs did influence the improvement of student learning in CCE. The core characteristics of the PLCs included: shared mission, vision and goals; supportive structural and physical conditions; temporal conditions to allow development of program goals; shared leadership; collective creativity; social and human resources (to encourage development of the CCE initiatives); shared personal practice and reflective dialogue, and, a continuous focus on student learning. However, it was concluded that to be able to improve student learning, teachers require deep knowledge and understanding of the scope of CCE. Where teachers in a school do not have this existing knowledge, they require access to effective PD in CCE both within their schools, and through external PD to enable them to expand their goals and programs in the future. In addition, the study found that that the provision of external support through the Grants to Schools process,

	funding for teacher release for planning, wider opportunities for PD, and the provision of new resources, encouraged the improvement of student learning in CCE in the case study schools. Finally, the study analysed the implications of the findings to inform the further development of PLCs in schools, theoretical views on future professional development of teachers, and most importantly, to suggest strategies for the continued improvement of student learning in CCE.
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Title	A longitudinal study of school childrens writing abilities: school years 6 - 9 inclusive.
Author	Arnold R M
Degree	PhD
Institution	UNIVERSITY OF SYDNEY
Year	1987
Abstract	This research project involved a four year longitudinal study of the development of school childrens writing abilities in Years 6 to 9 inclusive. It included an intervention program of particular writing tasks with experimental students from two Sydney primary schools and their subsequent high schools, in order to test an hypothesis that self expressive, reflective writing tasks would promote students writing development. To assess development in writing, annual writing tests were conducted in the two experimental schools and in four control schools. Four criteria were developed: audience; creativity; thinking and language. The results of the criteria marking provided evidence of significant linear trends in writing development and a significantly higher rate of development in the thinking category for the experimental group (N equals 20) as compared with the control group (N equals 19), but not in the other categories. A major conclusion of the study is that writing development is difficult to detect but the application of criteria marking reveals that an intervention program based on a growth model of writing can achieve some demonstrable effects.

Title	Mathematical creativity in upper primary children.
Author	Lees K
Degree	MEd
Institution	BRISBANE COLLEGE OF ADVANCED EDUCATION
Year	1986
Abstract	The purpose of the study was to determine whether mathematically creative children are suited to prevailing teaching styles. A mathematical creativity test and a questionnaire which asked children to rate their attitudes to mathematics, and to specific mathematical activities, on a Likert scale were devised. Children were also asked to rate their own mathematical imagination. These instruments were administered to 76 Year 6 children at two schools. The validity of the creativity test was checked by also administering an unpublished

	<p>mathematical creativity test and a general ability test and by comparing results with class marks. The highly creative children liked school mathematics, and played maths games in their own time, significantly more than the low creatives. They named more activities in maths that they liked and expressed more preference for nonroutine topics such as angles. They were also significantly more likely to find school mathematics dull. They expressed significantly more liking for group discussion and for integrated maths and somewhat more for practical work than the low creatives. Accordingly, it was concluded that more attention to these teaching approaches would probably benefit mathematically creative children. The creativity test results were quite distinct from IQ and class achievement scores. The two schools showed different patterns of behaviour. It seemed that the imaginative teaching observed at one school aroused interest and confidence in all children compared with the traditional teaching at the other.</p>
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Title	The philosophy of creativity.
Author	Gardner P R
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1978
Abstract	The concept of creativity has been improperly understood. The understanding for this study is that a creative person produces work which (a) is original and (b) displays qualities of excellence. Examples of original products are examined in an attempt to explain how they are different in relevant and important ways from other products. Alternative analyses of creativity are compared and contrasted to the concept of this study. Views on creativity presented by White and Elliot and other psychologists are discussed.

Title	Teachers perceptions of and attitudes to creativity in their students.
Author	Webb M
Degree	MEdSt
Institution	MONASH UNIVERSITY
Year	1986
Abstract	This study was undertaken to examine teachers understanding of the concept of creativity, their perceptions of creative children in the classroom and their attitudes towards creativity as a significant goal in the process of education. Given the emphasis that the development of creativity in children receives in the literature and the important influence of the classroom teacher, it was considered valuable to examine teachers current perceptions of and attitudes to creativity in their students. The interview method (free description - free response) was chosen as the most appropriate method of gathering data in this exploratory study. The questions were intended to be used as starting points for discussion rather than as a means of prescribing and limiting answers.

Gifted Education Theses

Title	Aesthetics and general music education at primary levels.
Author	Poulton J D
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1996
Abstract	<p>The aim of this research has been to develop educational resources which would contribute to any philosophical curriculum designed to stimulate children to reflect on their aesthetic experiences in music. The work is intended to be of value to primary school educators, particularly those working in philosophy with an interest in musical aesthetics, and those in general music education working to empower their students as music makers. I considered how providing children with direction, modelling, time and opportunity for philosophical reflection on their musical practices would enhance their musicality. I referred to material that Gary King and I developed in private preschool music classes, Artists-in-Schools projects under Arts Victoria, and in children's workshops for the Victorian Gifted and Talented Association. This material had proven useful in empowering children to express themselves creatively through music, dance, gesture and story, rather than circumscribing them as passive consumers of music. My philosophical background is shaped by the work of Ludwig Wittgenstein. For pedagogical purposes I appealed to the work of Carl Orff in music education and Matthew Lipman in philosophical education. Following Howard Gardner I drew on current ethnomusicological and psychological research, and the testimonies of composers describing the domain of musicality. The theoretical background of this thesis makes use of distinctions between 'person', 'domain' and 'field' as elaborated by Mihalyi Csikszentmihalyi. The project culminated in the development of some educational resources designed to stimulate children to reflect on aesthetic problems arising in the context of their musical experiences. Further work may focus on refining and publishing a handbook of exercises of this kind for use in Primary Classrooms.</p>

Title	An analysis of perceived problems facing coordinators of gifted education in NSW independent secondary schools.
Author	Downey P D
Degree	EdD
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	1999
Abstract	<p>This study sought to identify and analyse the perceived problems facing coordinators of gifted education programs in New South Wales independent (private) secondary schools. The position of 'GAT Coordinator' is a relatively recent one in this state, and as such, this is a new field of study. Both workplace and gifted literature provided categories through which problem areas were analysed: relationships, personal, the organisation, aspects of the job, and their role (both in terms of conflict and ambiguity). Data collection</p>

was both qualitative and quantitative in nature, utilising a statewide survey of GAT Coordinators. Their biographical, school and job information was analysed and compared to their attitudinal responses. Pearson's Correlation index was used to identify relational patterns. Significant differences in means between 'problem' groups and 'non-problem' groups were confirmed using t-tests of two independent samples. Coordinators tended to be inadequately trained in GAT education. Approximately half were stressed and dissatisfied with their level of performance. GAT Coordinators had low levels of administrative status, in terms of time allocation, budget, salary allowance, official title, kudos and 'power'. These findings were consistent with the literature. The two most significant barriers to co-ordinator efficacy were inadequate time allocations and unsupportive teaching colleagues. Both were moderately correlated to perceptions of stress and dissatisfaction. A positive perception of relationships was significantly dependent upon having a greater weekly time allocation and a position in a school where GAT had been established for a longer period. Time allocation was the most recurring problem variable, and the only single job variable that significantly effected every category of Co-ordinator perceptions of their role. Coordinators with greater time allocations reported; lower levels of stress, dissatisfaction, conflict, ambiguity and overload; fewer problems with the organization; greater feelings of personal adequacy; perceptions of more supportive relationships and fewer problems in total.

Title	The application of savant and splinter skills in the autistic population through curriculum design : a longitudinal multiple-replication case study.
Author	Clark T R
Degree	PhD
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	2001
Abstract	This study explored the application of savant and splinter skills in the autistic population through a differentiated educational program, the Savant Skill Curriculum. Among the under-served minority of gifted children with disabilities are a group of children referred to as autistic savants. These children, despite their autism, display exceptional gifts or savant and splinter skills in multiple domains. Although savant and splinter skills appear remarkable in contrast to the disability of autism, they are rarely of 'functional use' and are generally exhibited in obsessive and 'non-functional' behaviours. A combination of successful strategies employed in the education of non-disabled gifted children as well as in the education of autistic children was used in the attempt to apply, functionally, the often non-functional obsessive savant and splinter skills of the subjects. The facilitation of adaptive functioning in communication, social skills and behaviour was also trialled through the implementation of the Savant Skill Curriculum over a two-year period. Changes in both academic self-esteem and levels of autism were also examined as a consequence of the study. The subjects of this study were a group of 22 children with autism between the ages of four and sixteen years who displayed a variety of savant and, or splinter skills. Each subject's savant skills were assessed using a variety of standardised and non-standardised measures and an individual differentiated program was developed and then administered by

	<p>teachers and mentors. Pre and post Savant Skill Curriculum data were taken in relation to the functional use of savant skills, adaptive functioning in communication, social skills and behaviour, and changes in academic self-esteem and level of autism. The Savant Skill Curriculum proved highly successful in the functional application of savant skills and an overall reduction in the level of autism of many subjects. Quantitative and qualitative gains in behaviour, communication and social skills, and academic self-esteem were observed. This study further explored the nature and development of savant skills. The results highlighted: the obsessive nature of savant skills; the high levels of challenging behaviours of savants; the high levels of interest and motivation by the savant in their pursuit of savant activities; the early onset of savant skills in the absence of formal training; the familial link between the subject child's savant abilities and giftedness or superior performance and other family members; insight into the types and levels of savant skills, and evidence for the use of imaginative and creative methods in savant performance.</p>
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Title	Appropriate curriculum for academically accelerated students : listening to the case studies of gifted students.
Author	Merrotsy P L
Degree	DTeach
Institution	NORTHERN TERRITORY UNIVERSITY
Year	2002
Abstract	<p>This study explores ways of providing a better curriculum for gifted students. A review of the literature emphasises that gifted students require the provision of a qualitatively differentiated curriculum, and finds unequivocal support for the benefits of academic acceleration. An appraisal of curriculum in NSW notes that there are fine programs for gifted students, but that a lot more can be done. By listening carefully to the voices of gifted students, effective ways to improve their curriculum may be discovered. Following a life history model which employs the narrative, cases are made from the naturalistic portrayal of eight gifted individuals. Each case study outlines the formative background and educational experiences of the individual, and concludes with a summary of the issues which the individual believes to be most important for improving the curriculum for gifted students. An interpretive analysis of the case studies makes twenty recommendations. These include: greater flexibility of school organisation; better communication; continuity in a broader, more inclusive curriculum; options of academic acceleration, including access to tertiary level courses; appropriate educational support; and financial support for gifted students from low socio-economic backgrounds, and from rural and isolated settings. A model for academic acceleration is presented. It recommends six steps towards a better curriculum for gifted students: identification; communication; a negotiated curriculum; academic acceleration; access to tertiary courses while still at school; and support for gifted students.</p>

Title	Aspects of the musical development of talented young instrumental performers.
Author	Hamilton R A
Degree	MMus(MusEd)

Institution	UNIVERSITY OF SYDNEY. SYDNEY CONSERVATORIUM OF MUSIC
Year	1996
Abstract	<p>This study is based on a survey of music teachers (N=68) throughout New South Wales who have taught students aged 12 to 18 demonstrating outstanding ability in the performance of instrumental art music. It endeavours to determine best educational practice for the musical development of such students, with particular attention given to those learning activities which complement or enrich instrumental training. Opinions were sought regarding the nature of musical performance talent and ways in which it may be identified and developed. It was found that outstanding musical performance arises from the interaction of specific musical aptitudes with personality and affective characteristics, through disciplined training and practice, within a supportive and stimulating environment. Views of the teachers concerning objectives and optimal content components of an educational program for musically talented students were also considered. There was general agreement that the musical training of such students should aim to develop inner hearing and stylistic awareness as fundamental learning objectives. Parents and teachers should ensure an educational environment which is stimulating and challenging, and which provides a wide range of musical and cultural experiences. Talented instrumental students would benefit from opportunities to perform in solo and ensemble settings, to listen to others perform, and to participate in a broadly-based range of learning activities which may include singing, an understanding of harmony and history, and an appreciation of other arts.</p>

Title	The attitudes of educators towards intellectually talented students.
Author	Shean R E
Degree	MEd
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	1984
Abstract	<p>This study is concerned with educator attitudes toward intellectually talented students. Specifically, it investigates the relationship between educational position held, and these attitudes. The sample consists of 300 educators drawn from six types of employment within the education system. A 17 item Likert scale was constructed, which provided five measures of specific beliefs derived from a factor analysis of the items. Attitudes are classified favourable or unfavourable, depending on whether their associated behaviour facilitates or hinders the education of intellectually talented students. Both educational position held and background variables are related to educators' attitudes toward intellectually talented students. Teachers who are enrolled for further study tend to hold most favourable attitudes, while student teachers hold the least favourable attitudes of the sample. The background variables of age, sex, qualifications, current course of study and contact with the intellectually talented also show a relationship with attitude over and above the relationship between educational position held and attitude.</p>

Title	Attitudes of preservice teachers towards gifted and talented students.
Author	Carrington N G
Degree	PhD
Institution	UNIVERSITY OF NEW ENGLAND
Year	1997
Abstract	<p>This study obtained new empirical evidence on preservice teacher attitudes towards gifted students and identified some possible influences on these attitudes. Preservice teacher attitudes towards two types of school student, one gifted and the other average, were compared. In addition, an examination was made as to whether attitudes to each type of student were affected by ability characteristics or by certain other personal attributes, namely academic effort in school and gender. Taking into account this three way interaction of ability, gender and effort and by also considering the gender of the preservice teachers, the university they attended and their year of study, a series of four way analyses of variance was carried out to quantify the significance of results. 1,470 preservice teachers were surveyed. This group was made up of 942 primary preservice teachers and 528 secondary preservice teachers from the University of New England, Charles Sturt University, the University of Newcastle, the University of New South Wales and the University of Wollongong. Based on the findings of this study it is suggested that those concerned with the educational climate in schools should note that the results of this study challenge some of the popular notions about the valuing of application to study. Those who believe that preservice teachers would prefer the studious student will find little evidence to support such a point of view. Those who feel students who are gifted would be held in high esteem by our future educators may need to re examine their thinking, as will those who believe that gender itself plays a large part in determining how students are viewed. This study draws the conclusion that being gifted and striving towards academic success at school do not appear to elicit the support one would imagine from our future classroom teachers. The findings of this study must be considered by policy makers if the educational needs of children are to be met and all students are to have the opportunity to realise their full potential.</p>

Title	Attitudes toward gifted girls' abilities in the use of multimedia computer technology to learn science.
Author	Bailey R A
Degree	MPhil
Institution	UNIVERSITY OF SOUTHERN QUEENSLAND
Year	1995
Abstract	<p>This study investigated the effect of a multimedia computer technology program in Science on the attitudes of four groups of participants: girls with academic gifts and talents; boys with academic gifts and talents; a non-gifted control group of students; and the teachers in the private, primary boarding school in which the study was conducted. The research questions derived from literature which suggests that gifted girls are unassertive and self-limiting in the use of computer technology in schools and in learning Science. To overcome these limiting socialised and self-imposed roles, this study aimed to</p>

	<p>develop the gifted girls' assurance and skill by a computer based intervention. At pretest the only significant differences were in gender bias about the use of computers. Gifted boys and non- gifted male controls were more gender biased than the gifted girls and gifted boys had more gender bias than the non-gifted controls. In Science, the pretest differences were: gifted girls were more self-assured about Science than gifted boys; student controls and gifted boys were more biased against females' abilities in learning Science than gifted girls; and the girls had more positive overall attitudes about Science than gifted boys. After the intervention, the only significant results were: gifted girls had less female bias in Computing than student controls; and gifted girls and gifted boys had more positive attitudes toward Computing than the control group. Gain score analyses showed the following significant outcomes: student controls showed a significant increase in positive attitudes about girls' abilities in Computing; gifted boys showed a significant gain in total Computing attitude; gifted boys increased their self-assurance in Science; and teachers developed significantly more positive attitudes toward Science. It appears that while the intervention was valued and useful, other experiences in the school have contributed to positive self- appraisals by the gifted girls in attitudes and self-assurance about Computing and Science. The intervention produced, however, a range of changes in attitudes, thus supporting the value of this type of school-based program.</p>
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Title	Changes in self esteem of students in full-time (O.C.) classes for gifted students.
Author	Bool C
Degree	MEd
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	1999
Abstract	<p>This thesis reports on a study of the changes in self esteem of students in their first year in full time, homogeneous Opportunity C classes (OC) for academically gifted students in Sydney, Australia. It compares these changes in self esteem with students, judged to be equally gifted by the same criteria, but who continued their education in regular classes in local schools. A final sample of 100 students was drawn from 46 local schools and 5 OC centres. The subjects were all in Year 5, aged 9 years 6 months to 10 years 9 months, had scored at Stanine 8 or 9 on a TOLA 4 General Ability Test and had been recognised by teachers or parents because of their intellectual giftedness. This study compared the General, Social, Academic, Home and Total Self Esteem of these gifted students using three administrations of the Coopersmith Self Esteem Inventory over one year. Quantitative analysis was employed comparing self esteem changes in each of these subscales and according to IQ and gender by using MANOVA. Qualitative data was compiled using questionnaires and semi-structured taped interviews of parents. The results of this study help confirm earlier studies that self concept tends to be high among gifted students, but variations do exist when each aspect of self esteem is analysed separately. The major findings of this investigation indicate that there were no significant differences between General, Social, Academic, Home and Total Self Esteem scores of equally gifted students enrolled in specialist OC classes or regular classes. Similarly there were very few differences in attitudes</p>

	or perceptions of the parents of these gifted students. The concern shown by some parents that their child's self esteem may suffer in an OC class was largely unfounded. OC class education remained the preferred option of the parents.
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Title	Children's knowledge of problem solving and the key competencies.
Author	Van Deur P
Degree	MA
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	2001
Abstract	<p>This thesis examines the knowledge of problem solving of two groups of students in Year 5 at primary school. The knowledge of problem solving possessed by a small group of teachers is also examined. The research is related to the Key Competencies description of Solving Problems and is set within a framework of a constructivist view of learning. The research design incorporates two groups of children, one was a class group of students in Year 5 and the other was a group of Year 5 students chosen from four schools on the grounds that they were judged to be academically gifted. Five teachers who taught the students in the Regular group completed a questionnaire about their views of problem solving and the differences between successful and unsuccessful problem solvers. A major concern in this thesis was the adequacy of the Mayer Report's representation of Solving Problems. A second major area of concern was to assess what teachers and students know about the Key Competency of Solving Problems. The Mayer Report states that the Key Competencies are not bodies of knowledge. The responses of students and teachers indicate that they have formed views of problem solving as a body of knowledge. The descriptions of problem solving given by the Regular students and Gifted students were compared with their behaviour on a problem solving task. The explicit views of the Regular students did not match their problem solving behaviour. The Gifted students were more able to describe their problem solving behaviour and their descriptions matched their behaviour on a problem solving task to a greater extent than was the case for the regular students. They showed an explicit awareness of their problem solving behaviour. The Gifted students indicated that they had a better command of problem solving terminology than the Regular students. The author argues that explicit discussion of the processes of problem solving could improve students' knowledge and use of problem solving terms, as well as assisting teachers to discuss problem solving with students. The findings have implications for teaching and learning. The assumptions made by teachers during teaching have implications for teaching actions and for student learning. There were discrepancies in the way teachers and Regular students viewed problem solving as a general or specific construct. The Regular and Gifted students regarded problem solving as specific to curriculum areas while the group of teachers indicated that they viewed problem solving as a general construct. The discrepancy in terminology used by the Regular students and their teachers suggested that there is a need for an explicit framework with common terminology to be used by teachers and students in discussing classroom work on problem solving. It is argued that the explicit awareness of problem solving knowledge of the Gifted students contributed to a positive motivation for</p>

	problem solving and an effort orientation in their problem solving. The findings support a view of problem solving as a body of knowledge that can be taught in each curriculum area rather than being a set of simple cross curricular skills as proposed in the Key Competencies Report.
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Title	A class of their own : educational pathways of early achievers.
Author	Chanin E
Degree	MEd(Hons)
Institution	UNIVERSITY OF NEW ENGLAND
Year	2002
Abstract	<p>This manuscript is the report of a three-year study of the experiences and perceptions of students who completed postgraduate studies ahead of usual age. By documenting the educational paths taken by students under study and their attitudes to their accelerated experience, it was hoped that insight into the nurturing and restraining factors working on accelerated students could be gained. This was a retrospective exploratory study which endeavoured to gain a descriptive picture of what it means to be an accelerated student in Australia. Most particularly, this study aimed to learn about early tertiary entry as a method used to develop the talents of gifted individuals in Australia whose educational needs exceed usual expectations for their age, and thus gain a descriptive picture of how the practice of acceleration contributes to talent development. Participants were identified from a sampling frame taken from Commonwealth Higher Education Student Statistics of postgraduate students aged 19 years or under enrolled at Australian universities, during the period 1995-2000. By their early attainment of higher level awards, they were demonstrable early achievers. Data were collected from participants by questionnaire and interview. Students and their parents and teachers were interviewed. Paths taken to early entry were diverse. These students were frustrated by conventional educational environments. They lacked sufficient information about tertiary and career options. None regretted undertaking tertiary study ahead of customary age. Tertiary education was seen to provide opportunity for academic challenge and intellectual stimulus, social (therefore emotional) satisfaction, and occupational training and advancement. These early achievers 'owned' their learning and their acceleration was largely self-engineered by students or their parents rather than being a consciously developed educational practice adopted by educators with a view to talent development.</p>

Title	Co-ordination of gifted and talented education in primary schools in New South Wales.
Author	Whitton D
Degree	MEd(Hons)
Institution	UNIVERSITY OF WOLLONGONG
Year	1993
Abstract	In view of the policy and implementation statement issued by the New South

	<p>Wales Department of School Education in November 1991, on the education of gifted and talented children, a postal survey was undertaken to ascertain how this had been introduced into primary schools. The Metropolitan South West Region's 135 primary schools of New South Department of School Education were the target sample group. The following areas were examined: the educational background of the coordinator; the role of the coordinator; and the progress of the policy implementation in the school. It was found that very few gifted and talented coordinators had participated in formal training in gifted and talented education and their role has not yet been clearly defined. A variety of strategies have been implemented to cater for the diverse needs of the gifted and talented children in these schools; however, many coordinators seek further training in this area. The study concludes with a number of recommendations to facilitate future implementation strategies.</p>
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Title	Cognitive style and social needs of academically gifted children.
Author	Skinner G
Degree	MEd(School counselling)
Institution	CANBERRA COLLEGE OF ADVANCED EDUCATION
Year	1985
Abstract	<p>Most departmental policy statements on the education of gifted and talented students recommended their retention, where possible, in mainstreaming classes in neighbourhood schools. The educational experience in such classes, of 14 students identified as academically gifted by their teachers, was investigated using a case study approach. Their cognitive style was studied by reference to information processing strategies as revealed in Wechsler Intelligence Scale for Children - Revised (WISC - R) subtest scores. Interpersonal and communication skills were investigated through classroom observation and structured interviews. The theories of deviance and authority were applied in interpreting this data. Results indicated relationships between students cognitive style and teachers identification methods, and between students cognitive style and their school satisfaction. Sex differences in teacher response and student interaction were also noted.</p>

Title	Collaborative problem solving in mathematics : the nature and function of task complexity.
Author	Williams G
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	2000
Abstract	<p>The nature and function of Task Complexity, in the context of senior secondary mathematics, has been identified through: a search of the research literature; interviews with experts that focused on the nature of task complexity; expert use of the Williams/ Clarke Framework of Complexity as a tool to categorise the complexity of a task, and observation and analysis of the responses of senior secondary mathematics students as they worked in</p>

	<p>collaborative groups to solve an unfamiliar challenging problem. Although frequently used in the literature to describe tasks, 'complexity' has often lacked definition. Expert opinion about the nature of mathematical complexity was ascertained by seeking the opinions of experts in the areas of mathematics, mathematics education, and gifted education. Expert opinion about task complexity was stimulated by questions about the relative complexity of two tasks. The experts then categorised the complexities within each of these tasks using the Williams / Clarke Framework of Complexity. This framework identifies the dimensions of task complexity and was found by experts to be both useful and adequate for this purpose. A theoretical framework was developed to assess student ability to solve challenging problems. This theoretical framework was used to design a test to assess student ability to solve challenging problems. The information this test provided about the problem solving ability of the students in this study informed the analysis of student response to complexity. Case studies of two collaborative groups of final year secondary mathematics students were undertaken and these studies indicated the construct of a Discovered Complexity was a useful tool to analyse student response to complexity. This construct was formulated after preliminary observation of the video data. The task explored by the students was found to contain many potential complexities to discover but the two collaborative groups differed in the number and nature of complexities discovered. The discovery of complexities was found to add a dynamic element to the task as each new complexity altered the students' perception of the task. The discovery of complexities was found to be associated with increased student engagement with the task and increased conceptual development. The interrelationships between Task Complexity, student engagement and conceptual development suggested by the findings in this study have been explained using a schematic representation named 'Engaged to Learn'. This representation relates the concept of Flow and the concept of the Zone of Proximal Development to the concept of a Discovered Complexity thus relating the cognitive and affective aspects of learning.</p>
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Title	Community and teacher attitudes toward special educational provisions for gifted students in ACT primary schools.
Author	Mulraney R A
Degree	MEd
Institution	CANBERRA COLLEGE OF ADVANCED EDUCATION
Year	1986
Abstract	<p>To assess the attitudes of principals, teachers and parents towards gifted students, key aspects of planning and organisation of gifted programs, classroom teachers and their knowledge and need for assistance in gifted education; and to explore whether the three groups held different attitudes towards gifted students and the provision of specific programs to meet their special needs, a questionnaire was administered to members of the ACT Association for Gifted and Talented Children, together with principals, teachers and parents in nine primary schools in the ACT. The results of the questionnaire indicated that all three groups agreed with the proposition that every child was entitled to an educational program that would assist the child to develop to his / her fullest potential. Appropriate extension programs should</p>

	be run for gifted students in the local primary school, with the involvement of the resource teacher and the assistance of personnel and locations outside of the local school when it was appropriate.
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Title	A comparison of factors affecting the establishment and implementation of a gifted and talented program in a rural primary and secondary school.
Author	O'Regan D R H
Degree	MEd
Institution	CANBERRA COLLEGE OF ADVANCED EDUCATION
Year	1989
Abstract	This research reports on the factors that a sample of teachers in a rural primary and secondary school perceive as having an influence on the initiation and implemenatation of a curricular innovation. The innovation herein is the creation of a gifted and talent program to cater for identified students in this school, an area of current interest amongst educators and researchers in New South Wales and Australia. A methodology is outlined for the collection and interpretation of data on the factors involved, that may be employed by coordinators and researchers interested in curriculum provision for gifted and talented children. In this case study school, it was found that the factors were many and varied, that they differed in their supportive or inhibitive nature in the primary and secondary schools. These findings provided a foundation for subsequent planning in the initiation stages of the implementation of this innovation.

Title	Conditions of academic underachievement amongst gifted working class adolescents.
Author	Graham K
Degree	MSc
Institution	UNIVERSITY OF MELBOURNE
Year	1983
Abstract	A study was undertaken to locate discriminating personality and family factors between a group of academically underachieving, high IQ secondary students from working class environments and a sample of achieving students matched for school, year level, sex and IQ. Special attention was paid to sex differences. Findings reveal two underachievement profiles, distributed unequally between the sexes. The first profile, the adapted working class underachiever, is dominant among the adolescent boys. They are characterised by good self esteem, poor self control and indulgent social behaviour, and their parents do not have tertiary education aspirations for them. Instead, these adolescents appear to have rejected the pupil role and oriented themselves towards the adult role and as such are good members of their working class subculture. The second profile, the unhappy underachiever from the disrupted family, is dominant among the adolescent girls. They are characterised by divorce, maternal separation, poor intrafamilial relationships, and poor self esteem. The girls appear to be alienated from their families, and their distressed family

	relationships appear to contribute to their academic underachievement.
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Title	Confidence building and problem solving skills : an investigation into the impact of the Future Problem Solving Program on secondary school students' sense of self-efficacy in problem solving, in research, in team work, and in coping with the future.
Author	Volk V J
Degree	PhD
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	2003
Abstract	<p>This thesis explores the impact of the Future Problem Solving Program (FPS) on Australian students. While a limited amount of descriptive and anecdotal research material exists, there has been little quantitative data produced to measure possible effects of the program or the extent to which it achieves its goals. Three separate research projects were undertaken to investigate, first, ex-students' (n = 137) later careers, academic and professional, and retrospective impressions of the program's impact (Outcomes Survey). Secondly, pre-tests and post-tests were conducted with 207 Middle Level (Years 7-9) new entrants to FPS in four Australian states using a purpose-designed Problem Solving Self-efficacy Questionnaire (PSQ) to investigate their growth in confidence in group problem solving skills, and the Scheier-Carver Life Orientation Test (LOT) to appraise their growth in dispositional optimism, in comparison with 95 gifted non-participants in selective education classes. A third study administered the same instruments to all FPS 2002 National Finalists (n = 250). Attitudes to the program were explored through a purpose-designed Attitude Survey, and by a Reasons for Withdrawal Questionnaire for students who had left the program during their first year of participation. High levels of positive response were evident in both Outcome Surveys (the Retrospective Study and the post-test interviews). Neither the PSQ nor the LOT revealed significant program changes, possibly due to ceiling effects on the pre-test. Gender proved significant, with girls showing, and maintaining, more positive results than boys on PSQ, LOT, and Attitudes to FPS. Positive effects were also noted for competitive entry FPS students, but higher Level of Achievement did not associate with either higher self-efficacy or dispositional optimism. The results reported suggest that group problem solving processes may be analysed in terms of six separate factors through the PSQ, and program attitudes in terms of two identifiable factors. Gender differences, both in initial problem solving self-efficacy and optimism, increase during program participation and have educational implications, as does the significant association of competition with increased problem solving confidence, higher dispositional optimism and positive attitudes to the FPS program, in both the 'higher achieving' national finalists and the 'lower achieving' non-finalists.</p>

Title	A consideration of selected issues in the organisation of special programs for children gifted in the performing arts.
Author	Shaw W F T

Degree	MEdAdmin
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	1990
Abstract	<p>The study considers selected issues in the organisation of special programs for children gifted in the performing arts. The material for the study derives from a survey of relevant background literature, together with a questionnaire designed to gain insights into current thinking and practice in selected school settings. The study finds that there is a growing awareness, reflected in the literature and the questionnaire responses, that special provision should be made in order to meet the special needs of gifted students, and that this provision should be made through organised, stable and officially recognised programs, rather than be dependent solely on the enthusiasm and commitment of individuals working alone. There is considerable evidence of the benefit to gifted arts students of placing them in special programs where they are able to interact with like-minded persons, and there appears to be no evidence of socially negative outcomes of such participation. The excellence/equity debate continues to be a sensitive issue, and it seems that the philosophical bases on which particular programs are developed are important in gaining and sustaining a broad base of support to ensure their continued existence. The organisational structures of special programs for gifted arts students are seen to be of central importance in ensuring their effectiveness and success, and the study suggests the need for further research and development in aspects of student selection, curriculum, staffing, evaluation procedures and teacher education. It also advocates the development and maintenance of networks of communication on a national and cross-national basis between schools offering performing arts programs for gifted students.</p>

Title	Cooperative learning: a viable teaching strategy for gifted students in heterogeneous classrooms?
Author	Wee W C
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1998
Abstract	<p>This study addresses the controversy regarding the use of cooperative learning with the gifted students in a heterogeneous classroom. This is done by comparing gifted students learning cooperatively with those learning individually in a typical regular classroom. Viability of the teaching method is determined by investigating which learning environment better caters to the learning as well as affective needs of the gifted and talented students with the use of achievement tests and attitude measures. Nineteen gifted students were randomly assigned to a cooperative and individualistic learning condition. The students participated in six 55-minute instructional courses based on social studies. The cooperative learning model used in this study was the Jigsaw method. The results indicate that cooperative learning experiences promoted higher achievement and the use of higher order thinking skills among the gifted students. The results also suggest that the gifted students in a heterogeneous class felt more supported and accepted by their peers and teachers in the cooperative condition. It is concluded that cooperative learning</p>

	can be beneficial to gifted students in a heterogeneous classroom if steps are taken to ensure that the students are suitably challenged. Well-trained teachers, appropriate structuring of the groups and differentiating the curriculum to suit the needs of the gifted students are identified as some of the factors crucial to the success of the cooperative learning strategy.
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Title	Critique of the New South Wales government strategy for the education of gifted and talented students (1991) and associated major policies.
Author	Keighley R
Degree	PhD
Institution	UNIVERSITY OF SYDNEY
Year	1999
Abstract	This thesis attempts a modest contribution to the field of the education of the gifted and talented through the application of a new method of critique. The author's aim has been twofold - make a substantive contribution to the field of the education of the gifted and talented, and also to make a contribution to the field of policy critique by illustrating the use of this new method of critique - immanent policy critique. The object of analysis is the New South Wales Government Strategy for the Education of Gifted and Talented Students (1991), and associated major policies. The process of immanent critique situates a policy discourse ontologically, socially and historically, and through identifying and listening to the voices of missing or underrepresented stakeholders, seeks to construct a 'virtual dialogue' among all the stakeholders, thereby indicating how more democratically constructed policies might develop. A part of the substantive contribution to gifted education has been the presentation of the voice of the gifted through the undertaking of a small interview study with adults and children with experience of the special educational provisions for the gifted in New South Wales, as well as other stakeholder groups and policy developers. Though modest in size, this study indicates that on the levels of the defining of the problem, determining of goals of policy and strategies for achieving them, the New South Wales Government Strategy for the Education of Gifted and Talented Students (1991) and associated major policies suffer from a lack of the perspective of the gifted stakeholders, as well as theoretical confusion and a possible distortion of the policies' intent by strategic political and administrative interests. Through listening to the voices of the stakeholders, and the examination of relevant research and theory, this thesis attempts to identify more fruitful avenues for future policy development and action.

Title	The development of a career education program for gifted and talented secondary students : a case study.
Author	Boyd G D
Degree	EdD
Institution	CHARLES STURT UNIVERSITY
Year	2000

Abstract	<p>In providing for quality outcomes for academically selected gifted and talented secondary students, the school in this study perceived a need to re-develop its career education program which was demand responsive, generic in approach and not aligned, as determined by student responses, to student needs. The study aimed at developing a career education program appropriate specifically for gifted and talented secondary students. The study's aims further evolved as the program development and evaluation processes progressed to encourage an ethos for the teaching of gifted and talented students which resulted in an integration of career education and student welfare. Identification of the stages in development and implementation of a career education program for gifted and talented students, the content and practices of such a program and the implications for the school, school district and wider educational community were subsequently identified as research questions to guide the case study. The study's aims were met within the constraints of current school resources. Career education theory, gifted and talented student theory, the career education needs of gifted and talented students, and careers adviser training were considered in a review of current literature. In the interim a student welfare program was implemented in Year 7, and a career education program was trialled in Year 11 to complement limited class teaching in Year 10 preparatory to work experience. A needs analysis of current career education programs in the school formed the basis for development of a revised Year 7-12 Career Education program. Formative evaluations through survey of participants, participant observation, stakeholder input and outcomes reviews as summative evaluation were then undertaken to ensure a successful re-development of the Career Education program to meet the needs of gifted and talented secondary students. The formative and summative evaluation processes resulted in the programs revision to ensure earlier and more flexible career awareness opportunities; greater scope for values clarification; psychological, psychocreative and social factors in career development fostered as appropriate for individual students; career education and student welfare integrated in a flexible manner with an emphasis on individualised support; aspiration enhancement available for students requiring support; an emphasis on lifelong career development; the unique challenges of girls as the focus of suitable support strategies; and an expansion in community learning opportunities. To enhance the concept of lifelong career development for each individual the revised program was designated Career Guidance to stress supportive information rather than ultimate knowledge as the program base. The implications for school personnel, students, and parents, the integration of career education and student welfare content and practices, together with program supervision and accommodation in delivering a best practice career education program for gifted and talented secondary students were identified, leading to a review of the case study and its research scaffold.</p>
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Title	Development of a unified theory : giftedness, evolution and integrative intelligence.
Author	Clarke J S
Degree	MGiftEd
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA

Year	2000
Abstract	<p>The most fundamental problem of gifted education is the absence of a unified theory to explain the physical phenomena of gifted consciousness. However, this lack of theory is predicated by the absence of a physical theory which explains the evolutionary emergence and structure of consciousness itself. This thesis addresses this critical void in physical knowledge by developing Unitive Theory as a physical deductive theory of evolution from which reflective consciousness self consistently emerges. The psychological structures and processes of giftedness may be then framed within a deductive 4-dimensional evolutionary continuum. The structural self-consistency of unitive theory is further applied to explain intelligence differentiation; the complementary construction of knowledge and meaning; the predictive structure of conflict; and to verify the structural continuity and organisational self- similarity in both physical and psychological evolution. The advanced cognitive structures of giftedness are predicted and explained through the evolutionary structure identified by unitive theory. Unitive theory is verified as a deductive physical evolutionary theory, including biogenesis and consciousness, by a series of major scientific discoveries which transform the current educational and scientific worldview: 1) The identification of the initial numeric structures and processes of the nested evolutionary continuum, which thereby explain the origin of the laws of physics. 2) The discovery of cumulative systemic resonances in physical systems: solar system atomic system & molecular DNA-RNA system, and thereby disproves current theories which assume that random and accidental processes determine structural evolution. 3) The derivation of the numeric values of GUT unification & Planck energy levels from first principles. 4) The discovery of the reciprocal and geometric relationship between coupling strengths of electronuclear forces and unifying energy levels, which thereby confirms the legitimacy of scientific attempts to formulate a complete unified physical theory. 5) The discovery of correlations between planetary distancing and GUT & Planck unification values, confirming structural evolution as a nested evolutionary continuum. 6) The identification of thermal resonances between earth planetary positioning and human brain temperature; Planck energy and cosmic background radiation. 7) The discovery of cumulatively reciprocal relationships in planetary systems. 8) The discovery of the numeric evidence to confirm that bifurcation processes operate in spatial organisation and planetary system formation. 9) The discovery of progressive dimensional emergence, which predicts and explains evolutionary directionality and differentiative and integrative development. 10) The demonstration of how the resonant self organisation of attractive matter and radiant energy form an integrative and complementary evolutionary system.</p>

Title	Development of personal strengths and moral reasoning in gifted adolescents.
Author	O'Leary K
Degree	PhD
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	2005
Abstract	This study was designed to investigate the attitudes of academically gifted

	<p>adolescents towards the development of their personal strengths or gifts and to compare these with the attitudes of age peers not identified as gifted. This study also examined the reported higher levels of moral reasoning in gifted adolescents compared to age peers and how this may relate to their development of academic potential. The 750 participants included 401 identified gifted students and 349 students not identified as gifted in Years 9, 10 and 11 from seven different high schools in the Sydney Metropolitan region. An instrument entitled the Development of Personal Strengths Questionnaire was developed to analyse students' attitudes while the Defining Issues Test was also administered to measure moral reasoning ability. Results showed that gifted students have significantly higher levels of acknowledgement of personal strengths and reasons for developing personal strengths, which reflect altruistic motivations. Gifted students scored significantly higher on altruism and philanthropy and showed significantly higher scores on the Defining Issues Test. Aspects of developing personal strengths, on which gifted students showed no significant difference from non-identified peers were in areas of motivation and responsibility for developing these strengths. A significant, but modest, connection was found between development of personal strengths and moral reasoning. Gender differences were also examined, with males reporting higher acknowledgement of personal strengths than females and females reporting higher levels on reasons for developing personal strengths as well as altruism and philanthropy. Females also showed significantly higher scores on the Defining Issues Test. These results were consistent within the gifted participant group. It was concluded that gifted students in this study were more likely to acknowledge their personal strengths or gifts and were more inclined to hold reasons for this development which related to higher levels of altruism, philanthropy and moral reasoning. These characteristics need to be taken into consideration in development of programs and provisions for gifted students, both now and in the future.</p>
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Title	Differentiation for intellectual ability: student views with particular reference to intellectually gifted students.
Author	Long P E
Degree	PhD
Institution	UNIVERSITY OF MELBOURNE
Year	1995
Abstract	<p>The study investigated the views, perceptions and preferences of secondary school students in Melbourne, Australia, concerning aspects of differentiated education with particular reference to students of high intellectual ability. These views were examined within a perspective of provision for students with learning difficulties and for individual ability differences in general. Gender and ability of respondents in three ability categories were taken into account. The sample consisted of 662 Year 9 students from 11 independent schools. Literature reviewed focussed on relevant aspects of gifted education, and included work on special and Australian education. The review outlined relevant issues and supported the use of the student perspective as an under-used and important approach in providing quality education in effective schools. The study used survey methodology with a questionnaire designed by</p>

	<p>the researcher requiring both closed and open-ended responses. The study found that most students believe in differentiated education for those of high intellectual ability, especially at secondary level, and for those with learning difficulties. However, there were clear differences in the acceptability of differentiation of content, process, product, and environment. There were general similarities in views on provision for the two groups focussed on, but gender and ability level of respondents played important roles in student views. Students described advantages and disadvantages of special provisions, problems for the two groups, and what schools might do to help them, especially in minimising the major problem of difference. There appears to be a fairly coherent implicit theory of differentiated education held by the students based on the desire to avoid difference at close quarters. Interesting findings on grouping preferences and independent study, for example, show that views of these students do not always coincide with adult views reported in the literature.</p>
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Title	The education of the gifted child in the primary school.
Author	Rotter A
Degree	MA (Pass)
Institution	UNIVERSITY OF SYDNEY
Year	1980
Abstract	<p>his essay examines the education of the gifted learner of high intellectual ability in the primary school. The concept of giftedness is discussed as are genetic determinants. Identification of giftedness is considered. The essay looks at education for the individual and special needs of the gifted learner. It also looks at the role of the teacher and other professionals and finally an attempt is made to draw human and material resources outside the formal educational structure into working alongside the school to provide appropriate educational opportunities. It is acknowledged that the child's environment is made up of the home, the school and the community and the child must therefore be educated within the context of his own personal needs and aptitudes; and within constraints imposed by the home, and the school and by the society in which he lives.</p>

Title	Educational and administrative provisions for intellectually gifted children.
Author	Milne K
Degree	MEd
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	1981
Abstract	<p>The basic purpose of this dissertation is twofold: firstly, through an extensive and critical review and analysis of the available research, other literature and expert knowledge of gifted children, to present evidence and comment which will enable educators to make more knowledgeable decisions in regard to which practices and provisions are feasible in Australian and particularly, Western Australian schools. Secondly, the purpose is to formulate a series of</p>

	recommendations which, if put into effect, would assist in the education of gifted children. The final chapter, 'Recommendations, Summary, Conclusions and Implications', is an attempt to present and discuss a series of practical and specific recommendations which, if implemented, would in some measure assist in catering to the educational needs of gifted children.
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Title	Educational provisions for gifted and talented children in Victorian schools viewed from an Australian perspective.
Author	Hart R J
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1982
Abstract	This thesis is concerned with the Educational Provisions for Gifted and Talented Children in Victorian Schools. A knowledge of historical developments both Australian and world wide is seen as a necessary prerequisite for an understanding of present practices in both government and non-government schools. An analysis of the major contemporary issues which face the designers of programmes for gifted and talented children is then presented. Once these issues have been identified a description of current educational provisions operating within Victorian schools is undertaken. Government and non- government schools are examined at both the primary and secondary levels, as well as teacher training courses for the teachers of the gifted and talented. In the conclusion, achievements both in Victoria and Australia in meeting the needs of gifted and talented children are discussed and the prospects for the future are considered.

Title	The effect of gifted education on gifted students.
Author	Davies M
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	2001
Abstract	Four broad issues are explored in this study. Firstly, do gifted and non-gifted students differ in their self-concept? Second, are there any effects on the self-concept of gifted students placed in a special program for the gifted? Thirdly which type of special program for the gifted gives the most positive effect on self-concept? Finally, what are the interests of the gifted student? A cohort of 225 male secondary school students were tested with three intelligence measures, a self-concept measurement and an interests measurement. Of the 225 students studied, 63 were identified as gifted. The gifted students demonstrated higher self-concept scores than the non-gifted. There were no differences between the self-concept scores of the gifted students who had undertaken special programs and the self-concept scores of the gifted students who had not. This finding suggests that there is no negative effect on self-concept due to gifted education. On inspection of the data it was found that the frequencies of those attending a single gifted education program were too

	small to investigate the hypothesis. Students with a higher mathematical ability were found to be more interested in investigative and conventional pastimes. The study concludes with a discussion and practical implications for special education program writers.
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Title	The effectiveness of post-graduate courses in gifted and talented education as evidenced in subsequent intervention within the classroom.
Author	Sexton P J
Degree	MEd(Hons)
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	1995
Abstract	This research was directed at an investigation into the effectiveness of post graduate courses in the area of gifted and talented education. As such, the study was multifaceted. Firstly, it investigated the types of post graduate degree and certificate courses, and their content, offered by the universities within the state of New South Wales, and the inservice training courses offered by the Metropolitan Regional Directorates of the New South Wales Department of School Education. Secondly, the design of the research included a questionnaire for teachers, a followup interview of twenty five per cent of randomly selected respondents to the questionnaire, and a survey of students taught by teachers interviewed. The parameters of the study attempted to: compare the various courses offered by tertiary institutions within the state of New South Wales in relation to both theoretical input and the application of teaching strategies, skills and competencies; compare the different inservice courses or professional development training offered by the New South Wales Department of School Education Metropolitan Directorates as evidenced by classroom intervention; evaluate the teachers' perceptions of such courses; and evaluate the outcome of academic courses and professional training as evidenced by modifications of teaching programs and strategies. The conclusions point to the efficacy of the university courses in providing the basis of the theoretical underpinning of the education of gifted and talented students. The various Metropolitan Directorate inservice courses lacked the same theoretical depth. The major conclusions of the study pointed to the adoption and implementation of 'provisions' rather than complete programs which ensured fluency and sequencing of a curriculum for gifted and talented students being instructed within schools.

Title	Engaging minds: an investigation into gifted and less gifted students pleasure reading.
Author	Gonsalvez D
Degree	MEd
Institution	AUSTRALIAN CATHOLIC UNIVERSITY
Year	1996
Abstract	The main focus of this study was to investigate what gifted students were reading for pleasure and the nature of their pleasure reading when compared with the less gifted students. In essence the investigation set out to identify

gifted and less gifted students; examined the kinds and types of texts they read for pleasure; and looked at what stimulated these children's reading for pleasure. Gifted children and how best we cater for their learning is becoming more important in today's society and educational systems. As a result of studies conducted in Australia and overseas there has been more recognition given to gifted children's education. Many educators and teachers in our educational systems are now promoting the need to identify gifted students and to develop their potential through appropriate differentiated curriculum. This thesis was able to use models and descriptions of gifted students from the many studies already conducted to identify gifted students for this study. The theoretical descriptions and research into gifted children and their pleasure reading presented in the literature review of this study have made some important contributions to our understanding and knowledge of gifted students and their needs in relation to their reading for pleasure. The study was also able to find out what children (both gifted and less gifted) were reading for their personal enjoyment; and what provided them with the impetus to select books they read for pleasure. It was hypothesised and investigated that gifted children would enjoy reading particular kinds of literature more than the other children in their classes. Both the literature review and the results of the study support the hypotheses. The study has indicated that gifted students show a preference for certain kinds and types of texts and therefore need to be provided with appropriate reading materials to specifically cater for their needs. Provision for gifted children's pleasure reading has been discussed within the context of implications for educational practice.

Title	Establishing an infused thinking oriented curriculum.
Author	Milvain C
Degree	DEd
Institution	UNIVERSITY OF MELBOURNE
Year	2005
Abstract	This thesis critically examines the early stages of introducing higher order thinking skills to the students of Years 7 in a Melbourne Secondary College. These skills were part of a Thinking Oriented Curriculum initiative aimed at better meeting the present and future needs of students. The College's new direction was in response to increased pressure being placed on educational institutions to equip students for a future purportedly determined and dominated by technological and societal changes. One method available for educators to address this challenge is to ensure that thinking skills are deliberately taught within classrooms. In this thesis, the term thinking skills implies the ability to use, apply or practice those attributes of the cognitive process of thinking. Recognising the benefit of raising the cognitive level of students as part of a school curriculum is not a new addition to pedagogy. However, in the past, activities to strengthen thinking skills were seen as most appropriate to use only with 'gifted' students, or as incidental addenda to a classroom task. Effective thinking procedures can no longer be seen as the sole domain of able students. Strategies should be available for all students to affect how they construct and apply knowledge within their environment. These are the skills required to take them into the next stage of their lives, their workplace, as more sophisticated thinking is needed in employment than was

	required by previous generations. Appropriate higher order thinking skills thus become invaluable life management skills for all students.
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Title	An evaluation of the worth of a partial withdrawal enrichment program for gifted children based on Maker's curriculum principals.
Author	Williams E M
Degree	MEd
Institution	CANBERRA COLLEGE OF ADVANCED EDUCATION
Year	1988
Abstract	In 1980 as a means of addressing observed inadequacies in school curricula, the Catholic Special Education and Guidance Service, Brisbane Catholic Education Office established a partial withdrawal centre for counsellor selected gifted children to be known as the Learning Enrichment Centre. In 1984 the LEC curriculum was designed and implemented in accordance with Maker's model of curriculum modification for gifted students (Maker, 1982). This model outlines a set of principles which Maker claims, recognise the characteristics and needs of gifted students and guide the development of a qualitatively different curriculum. The overall purpose of the study was to assist teachers in making rational decisions about LEC provision. In particular the study was to collect information on the worth of the program - its relative strengths and weaknesses - and the influence on the curriculum of the administrative arrangement. Student responses indicated that they found their LEC experiences to be particularly interesting and enjoyable, and the LEC teachers to be kind, helpful, friendly and fair. These perceptions differed significantly from their perceptions of school. Elements of the Maker model which were consistently most valued by the group were the process modifications, 'freedom of choice' and 'higher levels of thinking'.

Title	An examination of the characteristics of young, potentially gifted children from culturally diverse backgrounds, as the basis for the development of appropriate educational programs.
Author	Carnellor Y E
Degree	DEd
Institution	UNIVERSITY OF WOLLONGONG
Year	1996
Abstract	Despite agreement among scholars and researchers that identification of gifted children should be based on multiple criteria, current research continues to indicate a heavy reliance on an IQ score. This practice often prevents economically disadvantaged, culturally diverse, bilingual, or minority students from taking part in a gifted program. Significant numbers of these students do not meet traditional criteria for gifted programs, but possess cognitive, motivational, artistic or creative potentials that clearly enable them to participate in the types of programmed experiences designed to develop and nurture academic and creative behaviours. Gallagher noted that vigorous efforts to establish programs to search out high intellectual ability in underserved and unserved subgroups (for example, underachieving gifted,

	culturally diverse gifted, gifted handicapped, gifted females) is a major priority in the field of education. The purposes of this study were: to investigate the characteristics of gifted NESB, Aboriginal and economically disadvantaged students; to use these characteristics to investigate new procedures for their identification; and, to develop an appropriate differentiated Early Childhood Intervention Program that will meet the specific needs of these students. This qualitative research study, using multiple case study design, investigated the characteristics of academic giftedness displayed by 52 children, aged 5-6 years from culturally diverse and/or economically disadvantaged backgrounds. A researcher designed instrument, IPMAI, was used to develop comprehensive intellectual profiles of each child. These were then used as the basis for the development of a proposed gifted program at three school sites in the Illawarra region of New South Wales.
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Title	A first reader on academically gifted children and adolescents.
Author	Foley B C
Degree	MA
Institution	MACQUARIE UNIVERSITY
Year	1987
Abstract	This paper examines the social and psychological adjustments peculiar to the academically gifted child or adolescent. Interest and awareness of the gifted is to some extent helping sharpen professional if not public concern for them. Differentiated education is gradually beginning to replace Procrustean approaches, and fewer people now make a fetish of an adherence to the normal curve of attribution in education. There is a new awareness that sameness and equality are not synonymous terms when they refer to educational opportunity. That this awareness is filtering into the consciousness of those concerned with the social and psychological well being of gifted children is indicated by the growing body of research, academic writings, and policy proposals, which have been reviewed in this paper, and, to a lesser extent, implementations of these. The paper attempts to introduce the range of issues associated with the development and well being of academically gifted children and adolescents. The contents therefore cover issues which parents, educators, psychologists and others need to have considered before attempting to provide facilities connected with the educational and psychosocial needs of academically gifted youngsters.

Title	The gifted child movement in New South Wales: public schools and the new class.
Author	Rothman S L
Degree	MEd
Institution	UNIVERSITY OF NEW ENGLAND
Year	1983
Abstract	This study examines the hypothesis that opportunity classes, special classes for gifted children in fifth and sixth grades in New South Wales schools, are

	available to the new class of intellectuals and technological intelligentsia. It is argued that the establishment of special classes was inextricably intertwined with the psychoeducational testing movement which held that intellectual ability can be quantified and that educational performance can be predicted with IQ test scores. This combination of identification and special educational preparation, the gifted child movement, has received renewed support in an era of attacks on public education, since it is seen by its supporters as an objective method for selecting the more able from all social classes; instead, because they are restricted in their access, OC classes form a separate stream of elitist education within the public schools, effectively offering one system to the new class and another to all others.
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Title	Gifted children in the Loddon Campaspe Mallee Region of country Victoria: a parental and student perspective.
Author	Cawthan L J
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1995
Abstract	This study has surveyed rural families in the Loddon Campaspe Mallee Region of Victoria to establish whether they are experiencing difficulties raising and educating their gifted children. Gifted children at primary and secondary levels were also surveyed. Seventy one families located throughout the region were accessed through schools and a parent support group for parents of children with special abilities. The parents and the gifted children completed written questionnaires. The parent questionnaire was divided into four parts: family background; geographical information; giftedness; and school situation. The study found that aspects of the family background mirrored those found in other research. Although some families were positive about their rural life, most of the families were experiencing some difficulties raising and educating their child in a rural area because of distance, isolation and rural recession. The families strongly expressed their greatest needs as being schools recognising their children as gifted and providing appropriate programs. It was concluded there is a need for policy on gifted children at both state and school level, for more teachers to be trained in educating the gifted and that training be made easily accessible for teachers in rural areas. Parents need to be trained as effective advocates for gifted children.

Title	Gifted children's preferred learning styles and culture: a case study.
Author	Almond M
Degree	MEd
Institution	CURTIN UNIVERSITY OF TECHNOLOGY
Year	1994
Abstract	Since 1958 when comprehensive schools were established in Western Australia the Education Department has been interested in programs for the academically gifted. The aim of most teachers of academically gifted students,

	presumably, is to provide an invigorating and challenging learning environment. However, a large volume of research contends that gifted students can underachieve and demonstrate deviant behaviour. It is the purpose of this case study to examine a Year 10 gifted class and endeavour to describe the culture of this selective group. The study will involve: an examination of the preferred learning styles of the gifted children; typical behaviours displayed by achieving and underachieving gifted children; and possible reasons for underachievement of gifted children.
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Title	Gifted learning disabled children: a pilot intervention program based on teachers' perceptions.
Author	Hasthorpe D
Degree	MEd
Institution	SOUTHERN CROSS UNIVERSITY
Year	1995
Abstract	<p>This is a study, firstly, of the perceptions of teachers in Lismore and district on issues concerning all aspects of gifted education, but with a particular emphasis on those related to the gifted learning disabled. Secondly, it focuses on the development of a pilot study, in the form of an instructional program for children in Years 1-6, who were perceived by their teachers to be gifted learning disabled. Children for the study were selected by teachers using checklists of descriptors covering the areas of behavioural characteristics, visual and auditory difficulties and giftedness indicators in a number of subjects. These characteristics were then confirmed by parents, who completed similar checklists. The children selected for the intervention program were placed randomly into three groups. Seven children were selected for group A, which received both home and school intervention, seven for group B which received only school intervention, and five for group C which received no intervention. The idea behind the intervention phase was for the researcher to determine if children's attitudes towards 'weaker' subjects as identified by both teachers and the children themselves changed, and if skills in reading, identified as being the weaker subject with all of the students, improved because of increased confidence and focus on the development of higher level thinking skills and strengths, rather than continuing to focus on weaknesses. The results indicated gifted learning disabled children could be identified with the use of checklists. Results based on the Neale Analysis Test for Reading indicated that the three groups were fairly homogenous in their composition, prior to intervention. There were differences between the experimental groups' reading mean pretest scores compared with their mean posttest scores as well as differences between the experimental groups and the control group, on posttest scores, especially in comprehension. This difference in pre and posttest scores, also indicated that the intervention program was successful, in that improvements in reading were made by the students participating. Their attitudes, as indicated through pre and post intervention interviews also had changed, with the students who were actually involved in the intervention, being more positive about themselves and being more willing to take risks, than they had before the program began.</p>

Title	Giftedness in early childhood : the search for complexity and connection.
Author	Harrison C A
Degree	EdD
Institution	UNIVERSITY OF WESTERN SYDNEY
Year	2003
Abstract	This portfolio documents an investigation of the nature of giftedness during the early childhood period of birth to eight years. It provides an in-depth exploration of a number of developmental domains including social, emotional, spiritual and cognitive development. Aspects of play and learning for young gifted children are also investigated. The use of both child and parent voices provide insight to the realities of the lived experience of being young and gifted. The insights that emerged from the research are subsequently used to challenge aspects of early childhood pedagogy frequently evident within western approaches to early childhood education such as the developmentalist discourse traditionally used to inform early childhood policy and practice. The findings of the study suggest that to ensure responsive education for young gifted children early childhood educators need to reconceptualise the child and the relationship between the three protagonists of child, family and educator. Collaboration between the three protagonists can facilitate the provision of opportunities for in-depth investigation and abstraction within early childhood curricular that can empower young gifted children in their search for complexity and connection during the early childhood years.

Title	Harold Wyndham : a study in education and administration.
Author	Hughes J P
Degree	PhD
Institution	UNIVERSITY OF SYDNEY
Year	2000
Abstract	This educational biography provides the first full-scale evaluation of the career and professional activities of Harold Stanley Wyndham, Director-General of the NSW Department of Education, 1952-68. It strives to explain why Wyndham rose to eminence and the nature and extent of his contribution to Australian education, and endeavours to gauge the accuracy of current perceptions of his influence and legacy. Early in his career, it was the possibilities of a science of education, with its promise of supplying objectified proofs, that intrigued the young Wyndham. Child psychology and the quantitative study of the processes of intelligence and learning, he hoped, would transform education and the profession. Their successful introduction, he realised, could support claims that educational leadership was now to be the exclusive prerogative of the professional. His studies of individual differences led Wyndham to a concern with mental deficiency, special schools for the gifted and educational misfits and homogeneous, that is to say, mental- age, grouping. Wyndham changed the face of secondary schooling in NSW with the 1957 Wyndham Report, the findings of a committee he headed which recommended both removing selection for and then extending secondary schooling. Although he is most often remembered for this achievement, he also

	made important contributions to the development of other educational undertakings, such as the use of tests for vocational purposes during World War II, the decentralisation of the Education Department and the wider employment of ability grouping. Contemporary educationists will recognise the enduring nature of many of the issues faced by Wyndham. Such issues included catering for individual differences, the purpose of public education, the professional preparation of teachers, the responsibilities of the Commonwealth in school and teacher education, and the respective roles of politicians and departments in policymaking.
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Title	Identification of and provision for gifted and talented children in Year 1-3 classrooms.
Author	McBride N
Degree	MEdSt
Institution	UNIVERSITY OF QUEENSLAND
Year	1988
Abstract	The intention of this study is to ascertain the impact of experience on teachers' perception of gifted and talented, and their ability to identify and provide for gifted and talented children within early education classrooms. It highlights the significance of teachers' perceptions in identifying and providing for children identified as gifted and talented. It focuses on the factors that encourage or inhibit identification and provision within this context. The impact of the school experience emerges. There are differences in the breadth and scope of teachers' perceptions, their knowledge, acceptance and awareness of individual differences in relation to gifted and talented children and their willingness to identify and provide for these differences through differentiated curriculum, enrichment and extension. This study indicates that teachers need greater knowledge, understanding and awareness of the characteristics and needs of young gifted and talented children. It suggests guidelines for the design and implementation of preservice and inservice courses.

Title	The identification of gifted Aboriginal children.
Author	Harslett M G
Degree	PhD
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	1992
Abstract	It is established that Aboriginal children throughout Australia are chronically under represented in programs for the gifted and that a major reason is the absence of culture specific research especially in relation to an Aboriginal concept of giftedness and methods for the identification of gifted Aboriginal children. Evidence from a sample of Aboriginal adults and children from the rural midwest region of Western Australia suggests that a concept of giftedness does exist within Aboriginal culture and that Aboriginal people believe giftedness is in the main a product of environmental factors and relates to some degree of personal natural ability. Aboriginal adults value giftedness most in

	<p>the artistic, to a lesser extent in the sensori motor, than the intellectual; and much less so in the socioemotional domains. In contrast Aboriginal children value giftedness firstly within the intellectual, then the socioemotional and sensor motor, and much less so in the artistic domain. A model is proposed for the identification of gifted Aboriginal children and is defended with reference to literature on giftedness and minority culture populations. In the absence of cultural specific information relative to key components of this model, research is undertaken to ascertain indicators of giftedness in Aboriginal children from a cultural perspective. Based upon research data from the above sample of Aboriginal people cultural specific teacher, parent, and peer checklists and rating scales are developed for the identification of gifted Aboriginal children. The Raven's Standard Progressive Matrices intelligence test is evaluated within a cultural context for use in the identification of gifted Aboriginal children. It is concluded that on a timed test Aboriginal children with a raw score greater than the mean plus one standard deviation, based on norms established for Aboriginal children, should be further considered for inclusion in programs for the gifted. The implications of the findings in this dissertation for the identification of gifted Aboriginal students, for provision for gifted Aboriginal children, its contribution to Aboriginal education, and to literature in the broader field of education for gifted minority culture are discussed.</p>
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Title	The identification of gifted children under formal school entry age.
Author	Thomas B R
Degree	MEd
Institution	QUEENSLAND UNIVERSITY OF TECHNOLOGY
Year	1998
Abstract	<p>This study addresses the issue of the identification of gifted children under formal school entry age. Case studies of the parents of thirteen gifted primary school children were used to retrospectively identify common characteristics of giftedness displayed by their children prior to formal schooling. Questionnaires and focused interviews were undertaken with parents of the thirteen children, and cross-checking of transcripts, coding criteria and analyses were used to ensure integrity. Common behavioural characteristics of early giftedness were identified, categorised and summarised according to frequencies, with specific examples provided. Recommendations for the early identification of young gifted children, implications for designing appropriate program provisions to meet the needs of young gifted children and suggestions for further research are provided.</p>

Title	The identification of giftedness in preschool-aged children by analysing responses to stories.
Author	Albon R J
Degree	PhD
Institution	CHARLES STURT UNIVERSITY
Year	1999

Abstract	<p>The failure of major methods to enable confident identification of all young children who are cognitively advanced, or 'gifted', has been, and continues to be a perpetual problem. This thesis offers an alternative to the major methods of identifying giftedness in preschool-aged children. It is argued that the major methods of identification are inappropriate and potentially counterproductive. IQ testing and its advocacy are problematic because the most recent perspectives on intelligence challenge its underlying assumptions; the developmentalism of Piaget is neither sufficiently sensitive to identify giftedness in all ages nor adequately refined as an identification technique, and checklists are incomplete as a singular method of identification. This study proposes that the analysis of children's responses to narrative discourse will provide a method to discriminate gifted from non-gifted preschool-aged children. This approach has its origins in Sternberg's conceptualisation of intelligence as information processing within his Triarchic Theory. It is argued that the intellectual mechanisms used to process and comprehend narrative discourse are central constructs of giftedness in young children and that the kind and degree of responses when listening to picture book stories are keys to its identification. Specifically, it is proposed that gifted children will employ language functions, inferencing, causal networks and gist of story in a manner which will allow them to be distinguished from their nongifted peers. Two preschoolers, having been identified as 'gifted' according to a Piagetian assessment, were matched with two non-gifted peers on the variables socio-economic status, willingness to talk, gender, family structure and parent/child interaction. Through a grounded theory approach, the verbal responses of these children to a daily story reading experience over three weeks in a naturalistic context were analysed using a descriptive content analysis and the NUD*IST qualitative data indexing system. These analyses were employed to determine which processes were used to comprehend narrative discourse as well as to identify the cue/voluntary nature of their responses and the complexity of their language structure. It was discovered that the gifted preschoolers used more complex functions of language, made more complex inferences and employed more complex syntax than their nongifted peers as they responded to stories. There was some evidence also that gifted children, in contrast to the nongifted, were beginning to construct causal networks. Gist of story and manner of response did not differentiate between the responses of the gifted and nongifted. This study offers a possible framework for future development of a reliable method of identifying giftedness in young children to assist preschool educators. It is anticipated that future research will allow the refinement and confirmation of the processes gifted children use to comprehend narrative discourse as indicators of giftedness which can be implemented within the routine function of preschools.</p>
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Title	The impact of grouping gifted primary school students on self concept, motivation and achievement.
Author	Chessor D
Degree	PhD
Institution	UNIVERSITY OF WESTERN SYDNEY
Year	2004
Abstract	This research determines the interrelationship of self-concept, motivation and

	<p>achievement in gifted and talented primary school children in a variety of groupings. An initial study of two groups was used. The experimental group consisted of 24 gifted and talented students in a homogenous class of gifted and talented students in a primary school in Metropolitan area of Sydney. The group consisted of 13 boys and 11 girls aged between 9-12 years. The comparison group was matched for age, gender and IQ and attended mixed ability classes in four local primary schools. Each group completed a Self Description Questionnaire at the start of the school year and six months later. The SDQ was administered 12 months later to both groups. The academic self-concept of the experimental group was diminished after six months and remained diminished for the 12 month follow-up study. There was no difference in non-academic self-concept between the experimental and comparison groups. Study 2 was a qualitative study of each parent's response to their child's experience in the gifted and talented class by asking them for their perception of the special class placement on their child using an open ended structured interview. Study 3 analysed data from a wider group of gifted and talented students in a Metropolitan area of Sydney, on an academic self-concept and motivation, reading and mathematics achievement. From this analysis the interrelationship of motivation, academic self-concept and achievement was observed and conclusions drawn for best practice for gifted and talented students. Academic achievement was enhanced by selective class placement. All motivational goal orientations and academic self-concept were diminished for both the experimental and control groups.</p>
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Title	An individual research program for accelerated science students.
Author	Palmer S
Degree	MEd
Institution	LA TROBE UNIVERSITY
Year	2002
Abstract	<p>Given the task of teaching science to an accelerated year 7 class, the author searched for an appropriate course for gifted children. She found that the textbooks in current use provided mostly recipe-style practical work that was neither sufficiently challenging nor creative. The curriculum requirements for the teaching of science as described in The Victorian Board of Studies' Science Curriculum and Standards Framework (CSF II) included the hope that students will: acquire and use the skills of specific investigation, reasoning and analysis to ask questions and seek solutions; and develop scientific attributes, for example, flexibility, curiosity, critical reflection, respect for evidence and ethical considerations. On acquaintance with CREST, a CSIRO-produced individual research program for students, the author was provided with a possible solution. The program emphasises the practice of creativity and metacognition as being vital components in educating students to solve scientific problems by thinking and performing as scientists. An examination of some of the relevant literature confirmed the importance of creativity and metacognition as components of problem-solving. Referring to these areas, a number of authors highlighted the benefit to students, particularly gifted students of designing and carrying out extended investigations. To test her belief in CREST as a beneficial teaching tool the author embarked on a study to examine whether participation in the CREST program improved the ability</p>

	<p>of gifted children to think scientifically and to follow scientific practical procedure, an endeavour involving metacognition and creativity. The sample consisted of the accelerated class as an experimental group who followed the CREST program for one lesson per week and a comparison group of similar but non-accelerated students in the same school who followed the normal year 7 science course. Since the sample size was small the study was quasi-experimental, a form of experimentation often necessitated by educational research. Both groups were required to respond to a series of scenarios given at the start and at the end of the year during which CREST was run and also at the commencement of the following year. The students were tested on their ability to formulate hypotheses, design and evaluate experiments and to suggest improvements to experimental designs in the light of results obtained. The results of the study were compared quantitatively and qualitatively, the latter using the SOLO taxonomy which compares student responses with respect to their complexity of thinking and gives an indication of a student's ability to think metacognitively. When the SOLO ratings were given an arbitrary numerical weighting the experimental group showed a twelve point increase in complexity of thinking compared with a 19 point decrease for the comparison group. Whilst statistical results were not achievable the results indicated that following the CREST program tends to promote higher order complex thinking. Furthermore, the regression in thinking skills observed in the comparison group, suggests that these skills need reinforcement in order to progress, at least in junior secondary school.</p>
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Title	An information processing study of individual differences in perception of pitch fluctuations in music.
Author	Geake J G
Degree	PhD
Institution	UNIVERSITY OF NEW ENGLAND
Year	1996
Abstract	<p>Although extreme individual differences in the music abilities of children have been celebrated from long before Mozart, satisfactory cognitive models of such precociousness have been less forthcoming. This research program employed an information processing model based on the neuropsychological work of Alexander Luria to investigate individual differences in the perception of pitch sequences with various degrees of structural coherence, with particular attention to children who appear to be musically gifted. The Luria model used in this study has three orthogonal dimensions of information processing: successive and simultaneous synthesis for encoding information, and executive synthesis which involves attentional and integrative processes. Psychometric operationalisations of the model have been used extensively in investigations of individual differences in mathematics and language performance of children at school. The model had not previously been applied to the domain of music. It was hypothesised that music perception involves the cooperative interaction of these three information processing dimensions. This research focused on the perception of fluctuations in pitch - the attribute of music which is most strongly predictive of music ability. Evidence from studies in the cognitive sciences suggests that musical elements such as pitch are hierarchically chunked to form meaningful musical Gestalts. Other studies in psychophysics</p>

suggest that these cognitive processes may exploit the fractal or self-similar form of fluctuations in musical attributes. Fractional Brownian motion (fBm) tone series have proved a valuable tool in studies of perceptual responses to pitch fluctuations. To this end, the autocorrelation function is particularly salient. Three psychometric studies were conducted with 10 to 13 year old children as subjects. Multivariate analyses were undertaken where appropriate. The first study (N = 151) investigated relationships between abilities on simultaneous, successive and executive synthesis, and individual differences in pitch pattern discrimination, pitch contour inversion, and responses to algorithmically generated fBm tone series as a replication of an earlier study with adults. Success on the contour inversion test was partly accounted for by abilities on both simultaneous and successive synthesis. The replication study showed that fractal music is preferred to either random or highly correlated fBm tone series. Significant sensitivity to structural differences in algorithmic music was related to abilities on successive synthesis by subjects with criterion scores on the pitch pattern discrimination tests. Two instruments were developed to measure sensitivity to the autocorrelation structure of algorithmically generated fBm tone series: one required an estimation of the strength of structural coherence, the second sought detection of a change in structural coherence. Study 2 (N = 135) investigated relationships between abilities on simultaneous, successive and executive synthesis, and individual differences in pitch pattern discrimination, sensitivity to autocorrelation structure, music education experience, and school academic performance. Abilities on the Luria model dimensions were measured by a new computer-based adaptive instrument. There were significant relationships between performance on the discrimination of pitch pattern tests, the perception of the two autocorrelation structure tasks, and the three Luria model dimensions. There were significant relationships between success at the two perception of autocorrelation structure tasks and performance levels of school mathematics and language studies, suggesting that common information processing dimensions underpin both musical and general cognition. The third study (N=29) involved children with demonstrated musical precocity. They were also tested with the Luria model and sensitivity to autocorrelation structure batteries. The abilities of the musically gifted children on each of simultaneous, successive and executive synthesis were superior, especially on executive synthesis, to those of the normal sample of children in Study 2. High ability on executive synthesis, the processing dimension with responsibility for the integration of the two coding dimensions and for the evaluation of information redundancy, can explain the remarkable facility for music learning shown by the musically gifted subjects. Their scores on both tasks of sensitivity to autocorrelation structure were also superior to those in Study 2, suggesting that the perception of coherence in pitch fluctuations is an attribute of music ability. It was also shown that for musically gifted children, perceptual preference for fractal structure in pitch fluctuations is related to individual differences in abilities on simultaneous synthesis.

Title	Integrating Gardner's multiple intelligences theory with a revised Bloom's taxonomy : a new model for school reform?
Author	Noble T
Degree	PhD

Institution	UNIVERSITY OF SYDNEY
Year	2000
Abstract	Both special and gifted education calls for curriculum differentiation to cater for high student diversity in every classroom. Multiple intelligences theory and Bloom's taxonomy of cognitive processes were integrated by the researcher and a colleague as a tool for curriculum differentiation. A formative evaluation was made of teachers' use of the MI/Bloom matrix for learning centres, over eighteen months in two primary schools. A different cohort of teachers classified 42 learning activities by the main intelligence engaged (using MI theory) and the level of Bloom's taxonomy. The school-based findings showed the teachers perceived the MI/Bloom matrix as a practical tool for programming for student diversity. Extensive triangulation of data was provided by teacher and principal questionnaires, staff focus group discussions, teacher interviews, collaborative school questionnaires, school brochure analysis and a field diary. The teachers perceived that MI theory provided a framework for curriculum planning which enabled them (i) to cater for different student strengths and (ii) to develop their students' awareness of how they learn and respect for classmates' learning strengths. The teachers perceived that Bloom's taxonomy helped them (i) to challenge all of their students' thinking and (ii) to plan learning activities that ranged from simple to complex thinking processes. The classification strand findings showed mean levels for intercoder reliability coefficients for each independent typology as well as the integrated MI/Bloom model which exceeded the 90 percent level of acceptability. The high consistency in teachers' use of key terms and constructs to order activities supported the logical organisation of the matrix and offered pragmatic validity for the model. The research findings indicate the MI/Bloom model offers potential as a useful tool for curriculum differentiation in any primary classroom. Complex structural and cultural conditions in each school influenced how different teachers utilised the model for school reform.

Title	Introducing a gifted program in a rural secondary school.
Author	Thompson H E C
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1997
Abstract	This study outlines the steps taken to address a problem in the field of education in a rural, secondary school. The problem, 'What can be done to cater for the needs of gifted students in Years 7 and 8?' was posed by a member of staff of this school. He recognised that there was a need to undertake research on the existing educational setting with members of the school community. Action research was chosen as a methodology which would be appropriate in this real-life situation. It involved the process of problem-solving through cycles of planning, acting and reflecting. It was a means of identifying and implementing a practical solution to a practical problem and, it was a method of carefully examining a practice and bringing about change in that practice. Through the action research process, significant attitudinal and structural changes occurred in the school setting involving administrators, teachers, students and parents. A definition of giftedness was accepted and a

	talent pool of highly-able students was identified. In addition, community involvement was initiated, a resource pool of mentor volunteers was compiled and a mentor program commenced. Action research provided the means of improving a practice by the undertaking of new action in the form of a mentor program for Year 7 students. This was a provision which was envisaged as being part of an extended gifted program in 1997. New direction for the following cycle of action focused on the problem, 'What can be done to establish a comprehensive gifted program throughout the school?' The emphasis had shifted from the Year 7 level to a total-school approach, leading to a new perception of the problem and a new cycle of planning and action.
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Title	The investigation into the application of chaos theory and fractal geometry as a cross-curricular enrichment theme for highly able students.
Author	Kelly L S
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1994
Abstract	Chaos theory and fractal geometry is investigated as an interdisciplinary enrichment theme for gifted students. A literature search revealed the recommendation that this topic be introduced into secondary schools, but no references could be found to a suitable course. Hence an action research group of highly able secondary school students aged from twelve to seventeen was established to help develop just such a course. It was found to be necessary to divide the emergent curriculum into seven streams to satisfy the individual needs of the students. The streams were mathematics, science, programming, software, history and philosophy, communications and art. The mathematics stream formed the basis introducing concepts such as iteration, deterministic systems, iterated function systems, complex numbers, the Cantor, Mandelbrot and Julia Sets, the Koch curve, fractal dimensions, period doubling and phase space. Some students programmed the mathematical procedures in both Quick Basic and Turbo Pascal. The applications in science, including weather forecasting, dissecting lungs, chemical reactions, astronomy, population dynamics and magnetic pendulums were investigated using practical methods wherever possible. Software packages were explored as were the historical, philosophical, sociological and artistic questions which arose during the action research phase. Modern communications were used to gain programs and information over Internet. Links with people of similar interests around the world were established. Through these activities, a final course of eighty work sheets and supporting reference sheets was developed. Students and the candidate maintained journals, along with a questionnaire and other documentary data, were analysed using a grounded theory methodology. As a result, chaos theory and fractal geometry was shown to be a suitable and stimulating theme for cross curricular enrichment of highly able students.

Title	An investigation into the benefits of vertical semester curricula organisation for the education of gifted and talented middle school students.
Author	Fardell R

Degree	PhD
Institution	SOUTHERN CROSS UNIVERSITY
Year	2003
Abstract	<p>There has been considerable debate in the research literature over the last decade concerning the best approach and methods to utilise for the education of gifted students, and, indeed, the concept of 'giftedness' itself, both in its conceptual and practical manifestations, has been queried. On the one hand, there is consensus amongst researchers concentrating on gifted education that organisational facilities such as acceleration and ability grouping are educationally advantageous to gifted students, whilst critics among the education reform movement are adamant that 'talent' is best developed within the regular mixed-ability classroom. These competing conceptions of giftedness are critiqued and synthesised into a new model on the nature and development of giftedness and talents as part of a wider review of the literature on gifted students, particularly gifted adolescents. Regardless of approach, the grouping and academic progression norm for students is the age-graded lock-step progression format used almost universally within the modern mass education systems of the western world. An alternative curricular approach adopted within a number of Australian secondary schools is that of Vertical Semester Organisation (VSO). This form of curricular organisation is aimed at satisfying the diversity of student abilities, interests, and developmental readiness through allowing greater student choice over a wider range of curricular units (as opposed to subjects). Whilst never intended as a specific education program for gifted students, its characteristics appear to offer many features often espoused in gifted education research as being beneficial to such students, yet within the infrastructure of a regular curricular offering applicable to all middle school students. Whilst research evidence on VSO as a whole is minimal, research findings on the judicious use of many of the componential pillars of VSO (e.g. invoking student interests, greater adolescent student autonomy) are encouraging. The operationalisation of VSO and the theoretical possibilities it may offer to gifted students are discussed against a backdrop of a short critique of modern mass education and the available componential and generically related research. Thus, the research problem addressed by this study was an assessment of the educational benefits to gifted students of the implementation of VSO within the middle school years of an Australian high school. This required examining VSO in some depth, including the perspectives of the major stakeholders: the students and teachers. The research was conducted over two phases and used a mixed method methodology of case study, secondary data analysis (of enrolment, acceleration and student grade patterns over the period 1994-1997), data analyses of student and teacher surveys, and structured interviews of selected gifted students from various scholastic years. The specific implementation of VSO indicated that it provided a viable infrastructure that offered many potential benefits to gifted students, although the influence of varying faculty policies could temper this conclusion. The results indicated that many students, not only those of higher ability, took advantage of the many opportunities for acceleration to study material in advance of their age and scholastic year. While most students only accelerated by one scholastic year in one or two units, some accelerated in more units, and several students undertook 'radical acceleration' by studying material two or more years in advance of their scholastic year. The performance of students in accelerated units matched or exceeded their mean</p>

	<p>performance across all their units, but this was more marked for the higher ability students who on a number of occasions performed better than their older peers. Many of such findings suggested that factors other than relative abilities contributed to the decisions and performance levels of students. Overall, student responses indicated that they recognised, valued, and took advantage of the benefits that VSO could offer them, and felt reasonably comfortable within mixed-age classes. These results were more pronounced amongst those students identified as 'gifted', although gifted female students were more emphatic than their male peers. Many of the gifted students viewed acceleration as a natural means of satisfying their desire for more interesting and challenging material, and although the receiving classes for accelerants were invariably mixed ability, they expressed a preference for classes composed of similar ability students. Whilst the gifted students valued the increased opportunities to choose study units, the lack of choice as to how they learnt within the classroom did not lessen overly their assessment that what they studied was usually interesting and challenging. Choice alone, though, was not viewed as their sole motivator for academic achievement. These overall positive perspectives of the 'moderately' gifted students were not shared with equal enthusiasm by two 'precociously' gifted students, who held the opinion that VSO offered little for their education, although they asserted that it was a considerably better basis than the age-grade lock-step format. Apart from a number of policy implications flowing from this study, the research has also suggested a new theoretical model that provides a holistic perspective on the interrelationship of student ability (perceived and actual), choice (of study and within the classroom), interest, and motivation, thus possibly providing a vehicle for the assessment of the relative contribution of each of these elements in varying learning situations.</p>
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Title	An investigation into the characteristics of an effective teacher: in particular for gifted and talented pupils.
Author	Moor A
Degree	MEd
Institution	LA TROBE UNIVERSITY
Year	1998
Abstract	<p>This study which investigates the valued characteristics of an effective teacher of gifted pupils was spirited by a project within one particular school setting which is described in the paper. The project involved the establishment of an innovative learning environment for selected high achievers. Early organisation witnessed some debate about the question of a suitable staff appointment. Some professionals saw little need to devote time and energy to the selection process whilst others placed importance on the role played by the teacher in the success or otherwise of the programme. A need for further information about effective teachers of the gifted became apparent. A critical and major component of this study involves a review of available literature regarding teacher effectiveness, in particular for gifted and talented pupils. The material in the literature reviewed provided the basis for some information gathering activities about valued teacher characteristics. Interview evidence, reflective writing and results of a questionnaire survey conducted in years 5 and 6 in three independent girls schools are presented in the study. The paper</p>

proposes that appropriate teacher selection for specific educational programmes is critical if programmes are to be successful. For effective staff selection to take place, it is argued that those who appoint staff must have a sound theoretical knowledge of the needs and characteristics of gifted pupils as well as of the characteristics of effective teachers. Outlined in the paper are three fundamental areas of investigation which involved a review of available literature: A definition of an effective teacher. A summary of the needs and characteristics of gifted and talented pupils. A summary of the research outlining the findings about the characteristics of an effective teacher for gifted and talented pupils. This study examines opinions from pupils about the characteristics they value in teachers and in particular is interested in the views of high achievers compared to those of other abilities. It investigates the possibility that there may be some differences in the characteristics valued by each group. This study seeks to provide a firm frame of reference for future staff appointments in one specific school setting.

Title	An investigation into the environmental knowledge, attitudes, and behavioural intentions of elementary school students.
Author	Amarant A
Degree	PhD
Institution	CURTIN UNIVERSITY OF TECHNOLOGY
Year	2006
Abstract	<p>This study was designed to find out elementary students knowledge about the environment, their attitudes towards helping the environment and what they actually have done to help the environment. Specifically, during the northern spring of 2002 all grade-4 and grade-5 students in one public elementary school in Miami-Dade County, Florida were administered the Children's Environmental Attitude and Knowledge Scale (CHEAKS) instrument. In 2002, some students in both grade levels interviewed each other in pairs to determine why they answered the way they did on the CHEAKS instrument. In the interviews, students discussed what they had been taught in school, compared to what they had learned outside of school that was related to the environment. The following year, during the northern spring of 2003, all grade-4 and grade-5 students in the same elementary school were given the CHEAKS instrument. Students at the elementary school were also asked questions which they answered in writing. These included: Which questions on the survey did you feel were difficult?; what do you remember learning about environmental education in school, at home or elsewhere? In addition, some gifted grade-6 students, who attended the nearby middle school and other grade-6 students who were in heterogeneous ability classes also responded to the CHEAKS instrument. Analysis of the data showed that grade-4 students in this elementary school had a higher commitment to the environment than did grade-5 students and gifted students had more knowledge than regular students. Only the gifted students in grade-5 had a high commitment to the environment. Comparing independent t-test results in year 2002 between grade-5 regular students (n=105) and grade-5 gifted students (n=30), grade-5 gifted students were statistically less committed to the environment in terms of scores on the Verbal Commitment. There was no difference in knowledge or commitment in grade-6 students. Girls were more verbally committed to the</p>

	environment than boys. Having knowledge about the environment did not necessarily mean students were committed to saving the environment or took action to solve environmental problems. The thesis concludes with explanations, discussions about the limitations of the study and suggestions for further research.
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Title	An investigation of early childhood teachers and their views and behaviours concerning children nominated as gifted.
Author	Falls J M
Degree	MEd
Institution	MACQUARIE UNIVERSITY
Year	2006
Abstract	Research into the education of gifted children has concentrated mainly on school- aged children and has traditionally employed a quantitative methodology. The reason for this study was to fill a gap associated with the lack of knowledge concerning gifted children in the early childhood setting. The specific focus of this research was to employ a qualitative paradigm to investigate early childhood teacher provision for prior-to-school gifted children. The study also analysed teachers' understandings associated with the concept of giftedness and highlighted how current interpretations are affected by both historical developments and current contextual influences. Seven early childhood teachers from seven different early childhood settings were involved in the study. Information concerning teachers' views and teaching strategies was gathered through the use of questionnaires, observation schedules and face-to-face interviews. This study identified various characteristics that the teachers associated with giftedness in young children and highlighted the importance of informal teacher observation in the identification process. The study also identified a range of strategies used by teachers when planning and programming for young gifted children in the early childhood setting. Finally, this study outlines implications associated with the findings and presents suggestions for further research.

Title	Issues in the establishment of a gifted education model in Surabaya.
Author	Tjahjono E
Degree	MGiftEd
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	2000
Abstract	The purpose of this study is to explore giftedness and gifted education in the Surabayan society context and to discover the obstacles in the implementation of Gifted education in Surabaya. This study involves thirty parents of high-achieving primary school students, thirty primary school teachers and six key persons, (one anthropologist/ sociologist, one administrator from Department of National Education (Province Level), two educational observers, and two educational practitioners). Results and discussions of this study indicate that Surabayan society does not have a consensus about the meaning of giftedness.

	<p>The Surabayan people perceive giftedness beyond intelligence, involving multiple abilities. Parents place more emphasis on intelligence, but teachers place more emphasis on creativity in defining giftedness. Some misconceptions about giftedness amongst parents and teachers in Surabaya include: (1) perceiving a gifted child as a perfect child; (2) perceiving giftedness as more hereditarily determined than environmentally determined; (3) placing more emphasis on cognitive characteristics than affective ones. Surabayan society shows an ambivalent attitude toward giftedness and gifted education. There are two conflicting attitudes contributing to the ambivalent attitude toward giftedness and gifted education: (1) conflict between the awareness about the needs of special services for developing the children's talents optimally and the uncertainty about the negative effect of special education for the gifted; (2) conflict between the awareness that regular class could not cater for the needs of the gifted and lack of motivation in giving top priority for special educational services for the gifted. Some potential problems in implementing gifted education in Surabaya are: (1) lack of consensus about the meaning of giftedness; (2) cultural notion that puts academic achievement as a prestige symbol; (3) authoritarian views; (4) lack of publication about giftedness and gifted education; (5) teachers' and parents' perceptions that giftedness is rather hereditarily determined than environmentally determined; (6) teachers' low qualifications in teaching gifted students; (7) the government's low priority for gifted education; (8) ambivalent attitude toward giftedness and gifted education; (9) technical problems in the classroom. Some potential factors enhancing the implementation of gifted education in Surabaya are: (1) Surabayan parents' and teachers' awareness about the needs of special educational services; (2) inclusive concept of giftedness; (3) teachers' positive perception of teaching the gifted; (4) teachers realise that gifted students are a valuable resource; (5) Surabayan society's characteristic respect for freedom of expression and frankness; (6) parental concern for the gifted needs in actualising their potential; (7) practicing homogeneous grouping and enrichment classes. Based on the results from this study, the following should be considered: (1) providing the socialisation of gifted education to increase the society's awareness of the importance of gifted education for gifted children; (2) providing publication of accurate information concerning giftedness and gifted education; (3) organising teacher training to increase teachers' quality in providing service for gifted students; (4) empowering parents' organisation; (5) conducting research concerning the cultural influences in nurturing giftedness.</p>
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Title	It isn't always about playing the right notes : meeting the needs of gifted secondary school students with jazz improvisation.
Author	Reid S
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	2007
Abstract	This research examines which particular aspects of gifted education and gifted learning are evident within a secondary school based jazz combo. The curriculum content focused on jazz improvisation: this curriculum and the combo setting are examined and analysed through the lens of a gifted learning

	pedagogy. The experience of the Jazz Combo is examined through the experiences of two students who form the case studies from which all data was created. Both students were interviewed at the beginning and end of a ten week period and their responses were analysed for evidence of gifted learning. This study suggests that a jazz improvisation curriculum is a valid and beneficial learning area for gifted music students. Particular gifted learning processes including creative thinking, producing creative outcomes, ability based grouping, and small group learning were all evident and of value in this project. This research reveals creativity and freedom as potential motivating factors for gifted students while highlighting the need for gifted students to be involved in specialised learning environments that target their needs.
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Title	Labelled and languishing : perspectives of gifted and creative secondary school students.
Author	Fitzpatrick D R
Degree	MEd
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	2005
Abstract	This study aimed to utilise a qualitative, postmodernist research approach in the teaching-learning area of school education in order to investigate adolescent students' constructs of giftedness, creativity and creative writing. Case studies of thirteen students who took a Year 10 course in Creative Writing in a Western Australian government, rural secondary school engendered a cross-case analysis. Some of the students had been identified as gifted or talented in terms of government school guidelines; all considered themselves to be creative. The study is innovative in that it aimed to elicit the perspectives of such fifteen to sixteen year old students. The study related student perspectives to academic literature. It generated information about the interrelationships of the main constructs of giftedness, creativity and creative writing. It also generated perspectives and recommendations on issues concerning the identification of, the provision for, the monitoring of, and the inclusivity of gifted, talented and creative students. The study generated implications for five areas in education: Aims and Policy, Curriculum Development, Educational Administration and Management, Teaching and Learning, and Teacher Education. The study made recommendations for further research, especially in the area of Teacher Education.

Title	Learning styles of 'gifted' and 'talented' adolescents : student needs and school provisions.
Author	Hall M E G
Degree	PhD
Institution	CHARLES STURT UNIVERSITY
Year	2000
Abstract	This research project focused on the learning styles of a sample of adolescent students at a large boys' private school in Adelaide, South Australia. In 1998, the case study school introduced the International Baccalaureate (IB), a

	<p>rigorously academic curriculum for 'gifted and talented students. This created a dual track of IB and SACE (South Australian Certificate of Education) options for students in Year 11. The first question addressed was: What learning styles are exhibited by adolescent boys who are identified as being 'gifted' and/or 'talented' and form part of a general Year 11 cohort? ' Related research issues concerned the conceptions of 'gifted' and talented' held by Year 11 students, their teachers and parents; the stated school processes of identifying and determining who are 'gifted and 'talented' students; the stated cognitive and affective needs of these students; the extent to which learning styles are considered components of being 'gifted' and 'talented'; and the stated specific learning processes of 'gifted' and 'talented' School provisions for learning styles were analysed, based on the reports of senior staff, teachers, Year 11 students and their parents. It was then possible to examine the theoretical and practical educational implications arising from the study, including the degree to which learning styles were recognised and appropriate school provisions made. A phenomenological, multi-disciplinary approach was used to relate individual student learning styles, particularly those of the 'gifted' and 'talented', to wider sociological contexts of school, local, and national educational levels. Learning styles are 'a way of utilising an ability or set of abilities'. Gardner suggested the relationships between styles and intelligences in terms of subject domain or cross-subject domain learning; this theorising, together with Piaget's 'equilibration' theory, enabled the design of a framework in which learning styles exhibited by 'gifted' and 'talented' adolescent students could be analysed. Styles were viewed as long term mental integrations (like self), which merged into specific sub-styles identified as academic; logico; aesthetic, creative; and intuitive. This last generic style required greater research, because it was not well identified in the literature, or in the case study school. Adolescent styles and self-definition appeared to be inextricably interrelated. Data revealed that preferred learning styles of particular 'gifted' and 'talented' students provided a key to negotiating a student-defined needs-based educational system, in which both cognitive and affective concerns could be given credibility and appropriate provisions. Styles mediated between individual needs, self, and the instructional school system. Research provided contextual answers to pressing issues for individual 'gifted' and 'talented' students, based on stylistic responses to curricula, assessment, classroom, and other issues at local, national and international levels. Models were designed to identify: specific adolescent needs, styles and provisions; intuitive processes; preferred styles found amongst 'gifted' and 'talented' adolescents, school-based provisions; and a national approach. The Theory of Impression Management was presented on the basis of extensive cross disciplinary research. Hence the metaphor, 'Education is style'.</p>
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Title	Making changes happen for teachers of the gifted : changing teacher attitudes to gifted students through professional development.
Author	Lummis S R
Degree	MEd
Institution	UNIVERSITY OF NEW ENGLAND
Year	1999
Abstract	This research study sought to test the effectiveness of a school based

	<p>professional development program in changing positively teacher attitudes toward gifted students, gifted education and classroom practice. Multiple methods of data collection, both quantitative and qualitative, were used to investigate the intensity and direction of shifts in attitude toward the gifted and towards gifted education, and to make inferences about the connection between these teacher attitudes and their classroom practices. Phase 1 of the study collected data through an attitudinal questionnaire undertaken by staff at two Queensland secondary schools. Two measures were taken, one at the beginning of the study and one at the conclusion of the study. Staff at one of these secondary schools then participated in a professional development program aimed at facilitating a change in attitude toward gifted students and toward appropriate educational provision for these students. Phase 2 of this study sought to gather illustrative data from a sample of teachers who had participated in this professional development program. Non- participant observation, interviews and document analysis were used to make inferences about the stage of development reached by each of the participants and to identify whether changes in teacher attitudes toward the gifted translated into their classroom practice. Further analysis investigated the factors which participants believed contributed to their attitudinal changes. These factors were then linked to support strategies suggested by the professional development model, 'Making Change Happen' (Queensland Department of Education, 1994). Overall the results of this study support the hypothesis that involvement in the professional development program run by the Experimental School would positively change teacher attitudes toward giftedness and the appropriate educational provision for gifted students.</p>
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Title	A modified agricultural curriculum, for talented students in years seven to ten in selective agricultural high schools.
Author	Hindmarsh R R
Degree	MEd (Pass)
Institution	UNIVERSITY OF SYDNEY
Year	1981
Abstract	<p>This essay is concerned with teaching agriculture to talented students in selective Agricultural High Schools. The talented or gifted student is presented as a particular unit in the general body of students who pass through our schools, and about whom, very little is known or understood. Several competing theories about talent are presented, and operating definitions for the concepts of a talented child, a selective and a comprehensive high school are presented. It is then shown that talented students are present in selective schools, especially the selective Agricultural High Schools, and that a proportion of these students study agriculture. The environment of the selective high school, its adequacy, advantages and disadvantages is then discussed. Some of these conclusions are drawn from empirical data. Various modes of instruction and curriculum design which may be used when educating talented students are examined. Following from this, the curriculum used in a selective Agricultural High School is analysed, and modifications for the teaching of agriculture to talented students in years seven to ten are proposed. Finally, suggestions about the implementation of several ideas raised in the previous chapters are presented.</p>

Title	Music education for talented children.
Author	Taverner J B
Degree	MEd (Pass)
Institution	UNIVERSITY OF SYDNEY
Year	1981
Abstract	Although we have reports such as the CHIP study and The Education of the Talented Child study (Dept of Education NSW), nothing much has been done in making provisions within the state educational systems for the special needs of gifted and talented children, and especially, nothing much has been done in music education. There is not in this country as yet organised and institutionalised action at the national level, such as is being done in Israel, for this special group of children. There is, therefore, a wastage of talent in Australia generally, and in New South Wales in particular. On the basis of objective data from an investigation carried out, the writer can propose certain procedures in music education for gifted and talented children, and several conclusions have been reached following this investigation: (a) that music talent can be identified; (b) that a programme for developing music talent in children has been tested; (c) that the children's understanding of the language and concepts of music can be improved.

Title	Musically gifted students in the first year of secondary school: identification and curriculum differentiation.
Author	Andreason F A
Degree	MEd
Institution	SOUTHERN CROSS UNIVERSITY
Year	1997
Abstract	In music, hereditary factors and an enriched early background form the basis of successful achievement. Also necessary are the will to practise, the drive to perform and the ability to analyse. A profound interest and fascination for the language of music sets musically gifted children apart from their peers, and poses a problem for the classroom teacher when programming for the wide variety of musical experiences required in the junior secondary mandatory music class. The study investigated how the identification of gifted and talented music students at the beginning of secondary school might inform the provision of a more appropriate approach to program planning for junior high school music. The use of the music evaluation kit (MEK) as a tool for testing skills mastery in music, alongside observed classroom behaviours, was the basis for the identification and selection for a differentiated music curriculum. The entire incoming year 7 group (N=200) participated in the study, initially through participating in testing using Parts I, II, III and V of the MEK. Students who reached criterion on the MEK were selected to undertake a student centred enrichment project (SCA 1) with parental consent and with the support of the school's GATE committee. A second group of students who were observed having superior playing skills and/or interest was given the opportunity to participate in a similar enrichment class (SCA 2). A third class (

	SCA 3) was formed through a selection of students who achieved comparatively better on the MEK but not on the semester exam (SE). Students' scores on the MEK, the SE and the end of year test (EYMT) were statistically compared. There were some significant differences on the mean scores of students selected for SCA enrichment projects on the basis of MEK results, and those students not undertaking SCA projects. It was concluded that provision for gifted and talented music students in the junior secondary school, in order to comply with current Department of School Education policies, and to follow the recommendations in the current gifted and talented research literature, must stem from an awareness of individual differences that leads to differentiated programming.
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Title	Night of the notables: a program for gifted and talented students intended to provide modelling for life from the lives of the eminent and famous for use as gifted education in schools.
Author	Smith G
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1995
Abstract	One of the continuing needs for the education of gifted and talented children is the provision of effective role models who are their intellectual peers. Being gifted brings special conditions and demands special provisions for a differentiated education. This thesis documents the development, implementation and evaluation of an educational program intended to cater for the needs of gifted and talented children. It uses the lives of eminent personalities to provide gifted children with role models in life for coping with the phenomenon of giftedness. It argues that such studies provide real world role modelling, mastery of life long skills and a strong motivation to achieve. The theoretical base selected is George T Betts' autonomous learner model, where longer and deeper personal research is supported by at home, in class and in school provisions to encourage students to develop higher level communication skills and better self concepts about themselves as gifted persons. The program, entitled the Night of the Notables, is a flexible educational program, being both user and teacher friendly, one that can be used as enrichment or extension in selected groups or in general ability classrooms, over shorter or longer time spans, for both gifted and talented, and across several age groups. It emphasises student choice and commitment and so is similar to Renzulli Type III Enrichment for gifted education. The thesis documents the progress of the study with lower secondary students at a suburban independent school, analyses data supporting hypotheses about increased mastery of selected cognitive skills and improved affectivity, and provides original materials developed to run the program. Implications for preferring similar methodologies for teaching gifted and talented are explored.

Title	The optimal context for gifted students: an exploration of motivational and affective variables.
Author	Hoekman K

Degree	PhD
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	1998
Abstract	<p>The participants in the first stage of the study were 540 Year 7 students comprising 402 gifted students grouped in selective high schools, 76 gifted students grouped in accelerated cohorts, and 62 students from a mixed ability group. Analyses of self- reports from these students, including principle components analysis, and multiple regression analyses, supported the expanded 'flow construct' upon which the conceptual framework was based. Hypothesised positive correlations between the measures of quality of school life reported and intrinsic measures of anxiety and tedium. The regression analyses supported the exploration of motivational orientation as a situational state that may be affected by classroom variables, and there was evidence to suggest that some anxiety may play a functional role in motivation. That the optimism factor actually accounted for the highest percentage of variation in the satisfaction with school reported, further highlighted the need to consider important interpersonal variables in any assessment of ' stage environment- fit' for adolescents. The examination of interaction effects, however, suggests that the affective and motivational outcomes are complex and appear to depend on the mediating influence of the students' perceptions of their coping resources. The moderating influences of perceived strain on coping resources and pessimism warrant particular attention in future longitudinal studies of gifted students experiencing a variety of accelerative and ability grouping interventions over the course of their first year of high school. Significant declines in intrinsic motivation, satisfaction with school and commitment to schoolwork were evident between the first and second administration of the questionnaire. These findings were consistent with the developmental trends associated with transition into high school. This study confirmed the practical value of adopting the 'social- constructivist' framework for further research.</p>

Title	Padfoot, Pup and Claire : academic acceleration in Aotearoa.
Author	Martin J
Degree	MEd
Institution	UNIVERSITY OF NEW ENGLAND
Year	2006
Abstract	<p>This study investigates the non-radical grade skipping experience of three gifted New Zealand children aged nine to ten. A review of the literature reveals positive academic, social and emotional outcomes from acceleration and, paradoxically, the reluctance of educators to accelerate children. An appraisal of events and anecdotes from the children's lives during the immediate acceleration period confirms the benefits and suggests scaffolding to enhance further the educational experience of acceleration candidates. An exploration of acceleration from the students' perspective via case study allows personal stories to emerge. Each story in this study gives a description of the participants and their reflections on the acceleration decision and transition period. The students' experiences and feelings over the first six months in their acceleration classes follow, and the case studies close with advice on</p>

	acceleration from the students themselves. Recommendations for parents and schools arise from an interpretative analysis of the three case studies. The recommendations have implications for the emotional, social and academic welfare of gifted accelerated students and gifted students per se. They include better communication, timing of acceleration placement, student mentors for accelerated students, consideration of teachers selected for gifted students, student participation in their programme planning, selection of schools for gifted students, and provision of school programmes to safeguard gifted students' welfare.
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Title	Perceptions of exceptional talent in high school students and implications for a school's curriculum.
Author	Finocchiaro J I
Degree	MEd
Institution	CANBERRA COLLEGE OF ADVANCED EDUCATION
Year	1983
Abstract	Questionnaires were sent to parents of three hundred and forty six male Year 7 and 8 students attending an independent, comprehensive school. Parents were asked to indicate the nature and extent of talent they believed their child possessed. Their replies were used as the basis for the range of talents: some fifty two areas are considered in this study. The questionnaire, together with questionnaires given to students and teachers, also served to identify seventy five exceptionally talented children. The talent areas were grouped into talent 'clusters' and students representing each cluster were selected for interviews. During the interviews, parents were asked whether their son had previously been identified as exceptionally talented, and what they perceived to be the educational needs of their son. These needs were looked at in terms of the formulation of a differentiated curriculum for exceptionally talented children. The curriculum is described mainly in terms of three teaching modes traditionally associated with gifted children: grouping, acceleration and enrichment. Each of these is explored in relation to the stated needs of the students and their consequent suitability in designing curricula for these students.

Title	Perceptions of teachers: a case study of giftedness in young children.
Author	Hall J M
Degree	PhD
Institution	UNIVERSITY OF SYDNEY
Year	1997
Abstract	Historically, it may be argued, gifted children have been overlooked and inadequately nurtured in regular schools. How many students of high potential remained unidentified as a result of those procedures remains an unanswered question, even more so in the case of young gifted children, whose formative years are so impressionable. Therefore, the recent recognition by educators of giftedness, has raised questions and encouraged further research to cover the

	<p>existing paucity of early childhood researchers in gifted education. This thesis, therefore reports on an exploratory study which investigated how teachers of young children construed their understanding of giftedness as they interacted with children in Junior Primary classrooms in three schools in Sydney, NSW, Australia. The strength of teacher voice is an integral element of this study. The understandings of the teachers were explored through focused conversational interviews. These provided greater insight into teacher understanding and were portrayed through their own power of narrative. Findings are reported in themes and subthemes derived from teachers' responses to the study's three key questions. Findings also indicate that the diversity of understandings of giftedness is as divergent in the literature as in the classroom; and that these understandings are strongly embedded in both personal and professional experience. Factors that the study teachers considered to be of critical importance when teaching young children were exposed throughout the study and resulted in strong practical recommendations for both preservice and inservice education. The thesis concludes with a discussion of implications for the future research into the roles of teachers to further avoid hindering development of young gifted children.</p>
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Title	Policy and practice in gifted education: review of the process in NSW from 1977-1990.
Author	Forster J H
Degree	PhD
Institution	UNIVERSITY OF SYDNEY
Year	1991
Abstract	<p>The main purpose of this study was to investigate how policy has become practice in the area of gifted education in the New South Wales government school system. A conceptual framework applied to the policy process was used to consider the extent to which the policy intent was realised. At each level of the policy, process perceptions and practice were revealed through interviews, documents, content analyses and, in addition, at the school level, through questionnaires as part of a case study approach. The study clarified and gave validity to general assumptions in the areas of policy making and gifted education. Findings showed that providing for gifted and talented children was not a priority, was not systematic and was not routine. Specifics were lacking through the policy process, resulting in the ad hoc nature of provision for gifted children which varied according to individual initiatives. As the then Minister for Education saw it, the situation was 'a pepperpot of exciting activities alongside inaction' (Metherell, 1989).</p>

Title	Practices employed by participating teachers to differentiate the curriculum for the gifted students in their class.
Author	Davies F
Degree	MGiftEd
Institution	FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
Year	2002

Abstract	This research is a qualitative, descriptive, and intrinsic case study that investigates how four participating primary school teachers differentiated the curriculum for the gifted students in their classes. Within the literature on the education of the gifted, there is a consensus of opinion that gifted students require specialised provision to meet their learning needs. This research examines the measures used by the participating teachers to provide specifically for the gifted students. It concludes that these students can benefit from the same excellent teaching practices that are optimal for all other learners. It contrasts a teacher-directed approach to curricular delivery in which the teachers are responsible for modifying curricular content, process and product and the learning environment to meet the particular needs of gifted individuals, with a student-centred approach in which all students - including the gifted learners - are responded to individually. The research concludes that, within the constraints of a regular classroom, it is probably too demanding to superimpose on a regular curriculum another set of methods for the gifted students alone, as is required in a teacher-directed model, but that within a student-centred approach, the gifted students can be provided for appropriately within the same frame as all other students.
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Title	A preliminary study of young gifted children.
Author	Paramanathan S
Degree	MEd
Institution	LA TROBE UNIVERSITY
Year	1985
Abstract	The study focused on assisting primary school teachers to select gifted children. Thirty teachers in 10 schools, nominated preparatory class Year 1 and Year 2 children as gifted. Seventy two children were nominated as gifted from a population of 850. These children were tested on verbal and nonverbal measures of mental ability and 68 complete sets of data were obtained. The teachers completed two rating scales. Twenty four children were interviewed with their parents, to provide indepth case study material. Factor analytic techniques were applied to the test data to identify the way in which it could be synthesised. Two distinct constructs emerged, which reflected convergent and divergent thinking ability. Analysis of variance and multiple regression analysis were used to determine whether teachers could discriminate between children who perform well on tests and those who do not, when they consider all the children to be gifted. It was found that under these conditions teachers were not able to discriminate between the two groups on the basis of observations. While the behavioural indicators did not predict, in general, the high scoring convergent and divergent thinking children, there were some separate instances of predictions of high and low ability.

Title	Problem-based learning and primary education.
Author	Allen S
Degree	EdD
Institution	MONASH UNIVERSITY

Year	2002
Abstract	<p>Problem-based learning is an approach to learning that has evolved from the integration of post-empiricist epistemology and current learning propositions. It is spreading through higher education, especially in the fields of medicine, architecture and educational administration. Most of the research on the implementation of problem-based learning in education has stemmed from studies carried out with adult learners but the approach has also been implemented at the Centre for Problem Based-Learning at Illinois Mathematics and Science Academy (IMSA) with gifted secondary students and in several elementary schools in the USA. The main aim of this thesis is to examine through literature review and critical analysis the philosophical and learning principles underpinning problem-based learning and to ascertain if this approach may further enhance learning in primary education in Australia. Problem-based learning emanates from the seeking of tentative solutions to problems. It is based upon post-empiricist epistemology which has evolved principally from the work of Dewey, Popper and Quine who viewed knowledge as ever-developing, continually changing and tentative, and open to question and disproof. The writer considers that teachers' implicit views of knowledge influence their pedagogy. Therefore it is important for teachers to become aware of their views of knowledge and understand why they hold them. This thesis discusses how post-empiricism differs from the dominant rationalist and empiricist epistemologies of knowledge, which underlie and influence much current teacher practice. It shows how teachers would need to develop different understandings of knowledge and knowledge acquisition in order to implement problem-based learning. At the same time it shows the validity of such understandings. Many of the learning propositions and processes already in use in some primary schools appear to be consistent with those advocated by supporters of problem-based learning. It would be expected that this would facilitate the introduction of this approach. However such learning principles need to be explored more closely. This is a theoretical study based on the analysis of literature and points out reasons why problem-based learning has been introduced successfully. Although problem based learning has been implemented in some elementary schools in the USA, the use of such an approach in primary education in Australia has not been widely documented. The suitability of such an approach to learning in Australian primary schools is explored and ways in which it could be introduced to the profession are suggested. More research based on practice is needed in this area. A future potential study is described, the findings of which could be distributed to school networks and professional development courses to allow teachers to become more familiar with this challenging but rewarding approach to learning.</p>

Title	The relational nature of mentoring gifted children using desktop videoconferencing.
Author	Lamont K
Degree	EdD
Institution	UNIVERSITY OF SOUTHERN QUEENSLAND
Year	2004

Abstract	The integration of technology into classrooms, the education of gifted learners, and the challenge this presents to classroom relationships as a result of engaging with computer technology are significant issues for teachers in this decade. The evolving paradigm of technology use, the deep learning of computer skills that students will require for future employment and how this can be incorporated into appropriate pedagogies for gifted learners also poses challenges for teachers. This thesis reports on a unique mentoring program that was developed to utilise desktop videoconferencing (DVC) technology and designed to specifically address these challenges. The study was undertaken in a large independent school (K-12) in New South Wales, Australia and involved six students and six teachers, none of whom had any previous experience of DVC or mentoring. The aim of the study was to investigate learning outcomes for teachers and gifted students. This study employed DVC as a didactic strategy over a 10-week period. The mentoring sessions of the cohorts and their post-mentoring interviews were evaluated using grounded theory methods of data gathering and analysis over a 2-year period. The findings demonstrated that the nature of learning during DVC could be constructed as an emergent theory, based on the teaching philosophies of the teachers and their goals for their students. Technical support, relational mentors and motivational tasks created supportive environments for DVC. Perseverance, enthusiasm and resilience enhanced the uniqueness of mentoring program. Several recommendations are also posited for further research.
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Title	Resistance to establishing an opportunity class for gifted and talented students in rural NSW.
Author	Sullivan R
Degree	MEd
Institution	GRIFFITH UNIVERSITY
Year	1997
Abstract	During 1995 a government directive was given to establish an Opportunity Class (OC) in a particular District in rural NSW by 1996. The author is a specialist music teacher at a NSW government primary school, which was chosen to host an OC. She would be teaching the OC students music if the OC eventuated. Being a member of the local school Gifted and Talented committee she was interested in following the process of establishing the class. Qualitative research, associated with the techniques of Action research and Ethnographic research focus on the structure and processes of what, why and how the OC failed. An investigation of policy versus practice, presents evidence of powerful historical forces of resistance to Gifted and Talented education. Through means of interactive data collection strategies, the ensuing case study reveals stakeholders perceptions, attitudes and interpersonal experiences.

Title	A review of secondary special placement programmes in Western Australia: clients' perceptions.
Author	Bailey J
Degree	MEd

Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	1994
Abstract	This study identified and described the key issues which 61 ex clients of Secondary Special Placement Programs in Perth high schools believe had important effects on the quality of their social and academic experiences in high school, and which they believe to be central to appropriate provision for gifted and talented students. The researcher incorporated qualitative research procedures to produce a questionnaire and directed discussion questions, in order to obtain and analyse the relevant data. It is concluded that there is a discrepancy between the Western Australian Ministry of Education's expectations, and the reality of much school based practice. According to the general consensus of the subjects of this study, and in line with general theory and existing Ministry policy, there needs to be: stronger support for, and commitment to, education for gifted and talented students; better management to ensure reduced isolation and ostracism of gifted students; appropriate training of staff, and appropriate staffing of programs; more flexible provision with respect to entry and exit from programs; appropriate pace and content of the curriculum; acceptance of acceleration as a viable and sometimes essential strategy for some students, and ongoing refinement of programs based on effective evaluation procedures.

Title	The role of the principal in implementing information technology (IT) as a learning tool in schools.
Author	Wilsmore D C
Degree	EdD
Institution	CHARLES STURT UNIVERSITY
Year	2001
Abstract	The use of Information Technology (IT) in the wider society has exploded in the past five years in most parts of the world. In New South Wales (NSW), Australia, significant resources both physical and human have been allocated to most schools. This thesis examines the pivotal leadership role of the principal in the successful implementation of IT in schools as a teaching/learning tool. This also involves examining changing pedagogics and structures within case. study schools. A case study approach was used in the research to examine practices in five 'beacon' schools. These schools were selected first on the basis of their apparent success in introducing IT, second, to ascertain if there were certain discernible factors that principals in these schools displayed or paradigms they utilised to ensure the successful introduction and use of IT as a learning tool by students. A range of schools reflecting size. isolation and structures in rural NSW were selected for the study. The literature suggests that any successful educational innovation in schools relies to a large extent on the leadership role of the principal, particularly In the areas of modelling, resourcing, professional development, planning, knowledge and collaboration. These among other key aspects were examined in the study. The findings suggest that all of the above were prerequisites for the successful implementation of IT as a learning tool. The study showed that no single factor was an entity in itself. Some principals were gifted in their knowledge and understanding of IT but this in itself did not

	<p>ensure success, nor did the availability of hardware or software. The keys to success were: Availability of adequate and continuing professional development for staff; The ability of the principal to establish and lead effective learning communities; Changing of old structures and pedagogics; and Principals overcoming their own technophobia and that of many of their teaching staff. Although schools were selected as 'beacon' schools, not all schools were seen to be highly effective at utilising IT as a learning tool. They were on a continuum from little effective use to exceptional use. Even though other key staff played important roles in the introduction and support of IT as a learning tool in the case study schools, the leadership role of the principal was crucial.</p>
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Title	The selection of teachers of the gifted and talented in Western Australian state schools.
Author	Martin S J
Degree	MEd
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	2004
Abstract	<p>The Western Australian Department of Education and Training (WADET) offers an Academically Talented Programme (ATP) as part of the Special Secondary Placement Programme (SSPP) for academically gifted and talented students in six Western Australian metropolitan High Schools. The stated purpose of the program is to enrich the selected students by offering a differentiated curriculum. Internationally, researchers into the needs of Gifted and Talented students have identified a set of overlapping criteria for effective teachers in such specialist programs. A study of the literature that guides this Academically Talented program however, reveals no explicit criteria, procedures or policies that would accurately select teachers who have the specified qualities. Since the program is staffed and does operate it is reasonable to assume that there are processes either centrally or, more likely, in the schools themselves, which allow administrators to identify teachers considered to be effective in the staffing of this program. The research question is how the teachers of the gifted and talented are selected in Western Australian state schools. The thesis begins by providing a theoretical and historical context of the teaching of the gifted and talented in Western Australia. The data consists of the author's personal experiences and reflections, both as an unrecognised gifted student and as a teacher of the gifted and talented in such a program and is triangulated in a series of semi-structured interviews with those in state schools responsible for selecting the teachers of the gifted and talented in special programs. Both academic literature and the author's personal experiences demonstrate that criteria for the teachers of the gifted and talented include high intelligence, competence to teach or trust 'non-conforming students', capacity to meet individual intelligences of students, knowledge of recent research to construct suitable programs, capacity to innovate and adapt, empathy for brighter students and positive valuing of high intelligence. The interviews indicate a lack of specific procedures for selection, lack of professional development, formal guidelines that are ignored by teachers and administrators, and a vague understanding of the special needs of gifted and talented. Moreover there is a political</p>

	ambivalence towards the gifted, which regards them as elite, and therefore not in need of special attention, despite their inclusion in the students at educational risk category. The Senate Review of Gifted and Talented Education in Australia devotes an entire chapter to 'Training Teachers to Handle Gifted Children'. However the WA Department of Education's consultation paper deals with the issue in two short paragraphs. The number of schools offering ATP has dropped from nine to 6 in the last four years. The thesis concludes that WADET in its practices is unsupportive or at least ignorant of the teaching needs of the gifted and talented students in WA Secondary programs.
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Title	Shades of giftedness: an ethnographic case study in the identification of giftedness in ethnic minority children within the early childhood context.
Author	Ogonda A A
Degree	MEd
Institution	QUEENSLAND UNIVERSITY OF TECHNOLOGY
Year	1994
Abstract	This study addresses the issue of identification of gifted ethnic minority children within the context of an Australian preschool. Case study method is used to describe the characteristics of three children, their parents, teachers and the pre-school environment. The children, from India, Iran and Vietnam, had all arrived in Australia within the last twelve months. Use of existing checklists, participant observation in the home and pre-school setting, unstructured interviews with parents and teachers, and collection of children's work were the main methods of data collection. Through the analytic process culture-specific behaviours have been identified. These descriptions have been used to develop a behavioural characteristics checklist which can be used by teachers as a framework during identification of gifted ethnic minority children. This forms part of a portfolio of assessment compiled using the study findings. Teacher awareness of giftedness, educational responses, theories and definitions of intelligence were also addressed through a workshop conducted as part of the study. The study reports on the effect of culture on manifestation of gifted behaviour, motivation, socioeconomic issues, teacher attitude and parent-teacher co-operation in the gifted ethnic minority child's learning outcomes. Suggestions for further research are also included.

Title	A short history of state education policy for gifted and talented children in New South Wales 1788-1989.
Author	Hall J M
Degree	MEd(Hons)
Institution	UNIVERSITY OF WOLLONGONG
Year	1991
Abstract	The recent recognition by educationists in general, and the New South Wales Department of School Education in particular, of the educational and social needs of gifted and talented children, has raised many questions for educators to consider. Before these can be answered it is necessary to review the New

	<p>South Wales history of state education policy for gifted and talented children. This thesis describes an investigation of the history of education policy making for gifted and talented children within New South Wales Department of School Education from 1788 to 1989. This investigation has revealed that no formal government policy existed until 1983, but due to the efforts of individual schools, teachers and several prominent individuals, some provision was evident. In the absence of official policy, other policies appeared. These policies have been found to fall into three broad categories closely linked in chronological order. These categories are: elitism, from settlement in 1788 to 1949; pluralism from 1950 to 1980; and corporatism from 1981 to 1989.</p>
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Title	Student perceptions of giftedness, gifted students, teachers and education of the gifted.
Author	Long P E
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	1990
Abstract	<p>The purpose of the study was to identify perceptions, preferences and attitudes of a sample of secondary school students in relation to giftedness, gifted students, teachers, and educational provision for the gifted, and to investigate differences and similarities between gifted and nongifted students. The sample consisted of 40 identified gifted and 40 nongifted students from Years 8 to 10. A review of the literature described the history of the development of gifted education, particularly in Australia, and research concerning students' perceptions of the study topics. The study utilised a theoretical background of implicit, social cognition and labelling theories, and a version of the critical incident technique. The findings showed many similarities between the views of the gifted and the nongifted, including a generally positive view of giftedness, of educational provision for the gifted and of gifted students, although they were viewed somewhat less positively than were the provisions for them. The students generally perceived a need for gifted programs, especially at secondary level. They clearly wanted a combination of mixed ability classes as the only provision. Withdrawal for the gifted was generally endorsed by both groups.</p>

Title	Student perceptions of subject acceleration in New South Wales secondary schools.
Author	Jaggar K A
Degree	EdD
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	1999
Abstract	<p>After a review of the literature on subject acceleration, the study investigates the thoughts and feelings of 307 gifted students, from 44 secondary schools in New South Wales, about their accelerative experiences, while they are still undertaken them. Drawing from survey results, an analysis is undertaken on family background; variety of subjects undertaken; school characteristics and</p>

	<p>organisational changes made on their behalf; enrichment opportunities; feelings about work in accelerated classes; emotional response; personality and self-esteem self rating by subject accelerant and evaluation of the program by accelerants. Gender and language background responses are differentiated. The semi-structured interview of 30 respondents in 15 schools, triangulates and supplements the survey findings and replicates a North American study. The findings are that subject accelerants to their peers do not exhibit signs of social or maladjustment as a result of their acceleration; have high self-esteem; are not troubled by separation from their classmates; enjoy working at a higher level and equality of access to programs. The interviews supplement the survey findings by exploring: the decision to accelerate; the effects of programs on accelerants; the personal qualities needed for success in acceleration; and the feelings of close friends about acceleration programs. Comparisons with the North American interviews show that accelerants have significant similarities in their thoughts and feelings about acceleration despite differences in their nationalities, cultures, backgrounds and programs.</p>
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Title	A study of the provisions for educating gifted and talented children with special reference to N.S.W.
Author	Quill J S J
Degree	MEd
Institution	UNIVERSITY OF SYDNEY
Year	1982
Abstract	<p>Plato's beliefs about educating the most able in Greek society, the patronage system during the Renaissance, Darwin's theories, the work of Binet, Terman, Thorndike, Dewey and Piaget are considered in the light of talented education. The counter movement opposing special provision is mentioned as is also the controversy regarding the nature of intelligence. The problem of the cut-off point between the 'gifted' and 'average' is discussed as is also the various understandings of the differences between the terms 'gifted' and 'talented'. The methods adopted in identifying talented children are shown to be related to the concept of 'talent' held by the person desiring to nominate students as being in this category. The problem of identifying underachievers is mentioned as is also the talented child who, because of a variety of reasons, exhibits negative and antisocial behaviours. Several approaches applicable to pre-school infants, primary and secondary children are discussed as well as teacher attitudes to identification and identification procedures. Problems inherent in early identification, predictability, cultural bias, socio-economic differences and motivation are mentioned. A possible philosophy that could form the basis of gifted education is suggested and models for implementation considered in the light of the work done by Guilford, Williams, Renzulli and Tannenbaum. The growth towards a state policy for educating talented children in N.S. W. is considered in the light of the 1977 Ministerial Report. The situation in N.S.W. is compared to that in Western Australia.</p>

Title	A tale of two schools: two organisational patterns for catering for the gifted.
Author	Frenney P J

Degree	MEd
Institution	UNIVERSITY OF CANBERRA
Year	1990
Abstract	<p>During the past decade, an increase in activity associated with the education of the gifted has been evident. This study provides a social and evaluative framework from which to view two organisational means of making educational provision for gifted students. In-class provision in one school is compared statistically and descriptively with a partial withdrawal system in another. The Stake evaluation model was used to provide a focus and classification system for the collection and processing of naturalistic data. Group tests of ability, attainment and attitudes were administered in order to obtain some more objective data. Evolutionary changes in the schools during the twelve month period make for difficulties in comparison; the reasons for the changes occurring highlight the difficulties which classroom teachers have in understanding and coming to grips with teaching gifted students. Any advantage in terms of student outcomes was weighted towards the school with in- class provision. The writer postulates that this was due to the collective responsibility, or ownership of the program, assumed by the teachers in this school, as opposed to the situation in the other school, where only one teacher, the withdrawal teacher, was prepared to assume this responsibility.</p>

Title	Teacher effectiveness in the education of gifted students : a comparison of trained, trainee and untrained teachers of gifted and talented students.
Author	Rowley J L
Degree	PhD
Institution	UNIVERSITY OF NEW SOUTH WALES
Year	2002
Abstract	<p>This study sought to determine whether specialised teacher training in gifted education assisted teachers in developing teaching skills, competencies and classroom climates identified as effective in teaching gifted and talented students. How best to prepare teachers of the gifted is well researched in the literature, however less research is available on how effective the training of these teachers is when they are faced with the challenge of catering for the gifted student in the classroom. This study examined differences between teachers trained (n=56), those currently undertaking training (n=31) and those untrained (n=80) in gifted education. A total of 167 teachers in eastern Australian schools teaching gifted students were observed in a variety of classroom settings. This study also examined aspects of the classroom climate of those teachers by interviewing a sample of five nominated gifted students being taught in 57 of the 167 classrooms visited. Both teachers trained and those currently undertaking training in gifted education demonstrated better teaching skills than the untrained group. A sample of 285 nominated gifted students (34 percent of the total sample) indicated that the trained and trainee teachers established better classroom climates with more emphasis placed on cognitive dimensions (higher level thinking - analysis, synthesis, evaluation) and affective dimensions (discussion and feelings) and less emphasis on lower level thinking (memory) and lecturing than the untrained group. Results of this study clearly show that teachers still in training, most of whom were only half</p>

	way through a rigorous 18 month training program, were more like their trained colleagues than they were like their untrained colleagues.
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Title	Teachers' conceptions of gifted young children ; perspectives through the lens of gender.
Author	Lee M-E
Degree	PhD
Institution	QUEENSLAND UNIVERSITY OF TECHNOLOGY
Year	2000
Abstract	<p>In contemporary society we have become highly dependent on a technological, scientific and mathematically literate population. There has been considerable debate for many years about the lack of talented people entering professions associated with these literacies and about the level of understanding of science and technology in the general community. Since perceptions of and interest in mathematics, science and technology begin in early childhood, teachers of very young children play an important role in fostering and supporting these interests. There is considerable under-representation of females in mathematics, science and technology related careers and in positions of influence on policy in these areas. This is pertinent for this research in light of the current climate in which a backlash to gender equity for girls has emerged with a concern for 'what about the boys?' It appears that, despite considerable initiatives to improve girls access and performance in these curriculum areas, that girls with high ability in mathematics, science and technology do not translate their ability into careers in these fields. The research problem investigated in this thesis emerged when the researcher became aware that teachers in Brisbane, Australia, nominated as many as five times more boys than girls for a mathematics and science enrichment program for gifted children. Hence, teachers' conceptions of what it means to have high ability in mathematics and science in early childhood appeared to be influenced by gender. Thus the research investigates the following questions: What are teachers' conceptions of giftedness in young children? What are the gender dimensions of these conceptions? What does this mean for early childhood teaching and learning? What are the implications for the teaching profession? Single indepth interviews were conducted with sixteen early primary school teachers (14 female and two male). The teachers were drawn from state and private schools and were selected on the basis that they had nominated boys and girls for participation in the Enrichment Network for the Very Young, a program operating at Queensland University of Technology. In the first stage of the analysis, a phenomenographic framework was used to develop a model of teachers' conceptions of giftedness. This model comprises seven categories of description or ways that teachers see the phenomenon of giftedness in relation to young children. These categories describe the way teachers see gifted children as: Possessing innate/natural or God-given ability; Having potential; Being rare; Highly noticeable; Having high levels of motivation; Demonstrating excellence in one or more areas; and Exhibiting asynchronous development in non-academic areas. In the second stage of the analysis an interpretive approach was used to understand the model of giftedness from a gender perspective. This latter analysis found that teachers' conceptions of giftedness are indeed gendered and that each of the seven categories of</p>

	giftedness guides teacher behaviours or actions that directly disadvantage girls. This finding points to the significant impact teachers' conceptions of giftedness have on the provision of appropriate programs for gifted boys and girls in early education. Therefore, in this thesis the author argues that the construct 'giftedness' is itself masculinised and is therefore problematic for high achieving girls. Recommendations for addressing this in pre-service teacher education and professional development are made.
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Title	Teaching gifted children in the regular classroom.
Author	Boskell J J
Degree	MEdSt
Institution	MONASH UNIVERSITY
Year	1986
Abstract	A review of the literature pertaining to the education of gifted and talented students has revealed an increasing concern about three issues, these being: definition; identification procedures; and programming. This study focuses its attention on the work of Renzulli. The study was conducted, using Renzulli's Enrichment Triad Model, in two Year 8 English classes of mixed ability, using the general theme of refugees. Enrichment activities were devised within the theme and were related to the three types of enrichment activities suggested by Renzulli. Evaluation was made about which students in the sample displayed gifted behaviour in the light of a pretest, which was used to predict above average academic performance on the part of the students in the sample. A further assessment was made of attitudes to the unit overall. The results revealed that there were statistically significant relationships between the scores obtained for the pretest of academic ability, and the posttest scores. It was also clear that students scored consistently within the definition of giftedness developed by Renzulli. The measurement of attitudes to the unit revealed a polarisation of student opinion, some students being uneasy with the less traditional approach.

Title	Teaching twice exceptional children : gifted with learning difficulties : professional development and provision in a Montessori school.
Author	Lewis E
Degree	MEd
Institution	EDITH COWAN UNIVERSITY
Year	2004
Abstract	This study seeks to investigate the teaching of gifted children in a Montessori school, with particular reference to gifted students with learning difficulties in writing. A review of the literature on the Montessori method of education and on provision for gifted children, shows considerable philosophical and practical overlap in these two fields. However, it appears that this theoretical overlap is not necessarily realised in practice. Furthermore, although considerable research has been conducted on the characteristics, identification and classroom provision for the gifted, very little has been undertaken on the

	<p>actual provision for gifted children in Montessori schools or gifted children with learning difficulties in writing. Research indicates that appropriate teacher development is an important component of provision for the gifted. Within an action research context, all twelve teachers at a school participated in professional development on the gifted. They were provided with current information about attitudes toward the gifted, theories and models relating to giftedness, as well as curricular and instructional modifications for gifted primary children. The teachers' perceptions about the gifted were examined, by the administration of an attitude scale and through an interview process, before the professional development and again after they had the opportunity and support to implement program modifications. To obtain a more detailed understanding of what was happening in classrooms, observation sessions were conducted. Data was also collected from parent feedback, informal observations, document searches and the researcher's reflective journal. The research found that the teachers indicated, overall, positive attitudes toward the gifted. However, contrary to evidence in the literature which suggested positive attitudinal changes in teachers after professional development, the teachers' attitudes towards the gifted remained the same, overall, throughout the study. Despite this lack of measurable attitudinal change, the teachers enacted practical, behavioural modifications to their gifted students' programs after professional development. Positive outcomes for teachers and gifted students were generally obtained. Nevertheless, teachers expressed reservations about the effectiveness of their interventions for the gifted, particularly those with learning difficulties, with reference to these students' ability to 'work independently'. Implications that arise from this research relate to issues influencing the identification and provision for gifted students with learning difficulties. Additional implications were presented for school administration, teacher development, methodological issues and the need for further research.</p>
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Title	Unleashing talent : an examination of VanTassel-Baska's (1995) integrated curriculum model in an inclusive classroom.
Author	Henderson L
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	2005
Abstract	This study investigates the implementation of VanTassel-Baska's Integrated Curriculum Model (ICM) in a mixed-ability Year 3 dassroom. The model, which was designed specifically for use with gifted and talented students, draws upon concepts, rather than being topic-based, and focuses on advanced content and higher order thinking processes. The study's purpose is to investigate the learning that takes place as students of mixed abilities engage with the ICM. Specifically, the study involves interpreting student talk and work samples, and observing the ways in which meaning is sought while engaging with the ICM. A qualitative case study methodology is used and some quantitative analysis of students' pre and post reading and writing samples and talk patterns is undertaken to support and illuminate the qualitative analysis. Student talk is analysed by using Ritchhart's thinking disposition framework that underpins his theory of intellectual character.

	<p>Ritchhart proposes six dispositions: the disposition to be open minded; curious; metacognitive; a truth seeker; strategic; and sceptical. The study revealed that the ICM was effective in producing learning that was indicative of displaying intellectual character. This finding was true for both the gifted and non-gifted students, with varying degrees of engagement in both cohorts. In particular, the gifted students make mention of the increase in level of challenge and the opportunity the model provides to engage in exploratory talk about complex issues. The non-gifted students, while acknowledging some difficulties with particular aspects of the unit, overall recognise increases in their learning and their ability to ask questions. Of most significance are the findings that demonstrate students are able to: (a) engage in exploratory talk about complex issues and demonstrate thinking that is indicative of displaying intellectual character; (b) advance their skill level in both persuasive writing and literature interpretation; (c) acknowledge their level of engagement with the ICM in comparison to previous learning experiences. Further research is recommended before any firm conclusions can be drawn about the effectiveness of the ICM in inclusive classrooms. This would involve using the ICM with an extensive range of learners, and being delivered by different teachers, with their own pedagogical approaches. However, the study highlights the powerful tool that Ritchhart's thinking dispositions framework offers educators for assessing student thinking. It also raises the need for a closer examination of the framework to clarify aspects such as whether it is sufficiently inclusive and whether the framework is hierarchical in structure.</p>
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Title	The vertical curriculum meeting the needs of students of high intellectual potential.
Author	Ryan M J
Degree	MEd
Institution	UNIVERSITY OF MELBOURNE
Year	2001
Abstract	<p>This pilot project investigated one Victorian independent schools' implementation of the vertical curriculum in Years 5 and 6 over a one-year period in 1998. The study sought to evaluate the effectiveness of the vertical curriculum model for students identified as intellectually gifted, high (gifted and bright) and mainstream (average, low average and low) students by reviewing the students' progress in mathematics. Using progressive achievement tests in mathematics at the beginning and end of the year the identified gifted, bright and mainstream students' progress was monitored to track their mathematical development, consisting of achievement or progress made. The cohort reviewed consisted of eighty-eight students incorporating eleven identified intellectually gifted students, thirty-three bright students and forty four mainstream students, as identified by the Raven's Progressive Matrices. The findings indicated firstly that an advanced level of mathematical achievement was found for the identified gifted students. Secondly, it was found that the vertical curriculum assisted the mainstream students as they showed significant mathematical progress. The findings indicated that the vertical curriculum provided an equitable educational option for the identified intellectually gifted, bright and mainstream students.</p>

Title	Very superior IQ and academic achievement: the tertiary entrance examination performance of intellectually talented students in the Secondary Special Placement Programme.
Author	Hopkins J,
Degree	MEd
Institution	UNIVERSITY OF WESTERN AUSTRALIA
Year	1989
Abstract	In 1981 the Education Department initiated the Secondary Special Placement Programme (SSPP) in eight senior high schools to provide a more appropriate education for intellectually talented students in Western Australia. This study focused on the Tertiary Entrance Examination performance of the 1982 intake of students into the program. It compared the performance of these students with that of similarly talented students who did not participate in the program. Acceleration within the SSPP enabled some students to complete lower secondary courses in two, rather than three years. Some accelerants progressed directly to upper secondary courses and graduated from secondary school after just four years of study, one year less than usual. Accelerants in the SSPP did as well on their Tertiary Entrance Examinations as students who were of similar ability and who were a year older on graduation. In the Tertiary Entrance Examinations there was no difference in the mean Tertiary Entrance Scores of SSP and non- SSPP students of similar ability.