

RESEARCH REPORT

Creating Musical Futures in Australian Schools and Communities: Refining Theory and Planning for Practice through Empirical Innovation

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The preamble to the Australian Government's 2011 National Cultural Policy discussion paper envisages an Australian society in ten years, when the arts are mainstreamed and embedded into the public consciousness via a range of economic and social portfolios.¹ Through this policy the government acknowledges the important role that arts and creativity play in the daily lives of Australians. Indeed, the intrinsic and instrumental benefits of arts education for young people and the communities in which they live and develop has been argued strongly in reviews conducted both in Australia and internationally.² Unfortunately, due to the varied methodologies employed in research seeking evidence to support the positive impact of music education, the findings are equivocal.³ This has fuelled an ongoing debate regarding the value of arts education generally, and music education specifically, in schools and communities. Nevertheless, the Federal Government

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¹ *National Cultural Policy Discussion Paper* (Barton, ACT: Department of Prime Minister and Cabinet, Office for the Arts, 2011).

² C.M. Dwyer, *Reinvesting in Arts Education: Winning America's Future through Creative Schools* (Washington, DC: President's Committee on the Arts and the Humanities, 2011); Robyn Ewing, *The Arts and Australian Education: Realising Potential* (Camberwell, Vic: Australian Council for Educational Research, 2010).

³ Nikki Rickard, Caroline J. Bambrick and Anneliese Gill, "Absence of Widespread Psychosocial and Cognitive Effects of School-based Music Instruction in 10–13 Year Old Students." *International Journal of Music Education* (in press).

is committed to achieving an arts-inclusive society that provides a means for all Australians to participate in artistic education and expression across the country.⁴

This agenda provides the backdrop for research by Gary McPherson (The University of Melbourne), Jane Davidson (The University of Western Australia), Margaret Barrett (The University of Queensland) and Robert Faulkner (The University of Western Australia) that aims to refine theory, plan for better practice and provide empirical data that can help create more meaningful musical futures in Australian schools and communities.⁵ Included will be a documentation of young people's personal beliefs and everyday life experiences that will help establish the conditions that are necessary and sufficient for the development of an interest in and support for musical learning opportunities. The research agenda also aims to challenge current conceptions in ways that will lead to a new understanding of the function of music in education, and in young people's lives, that is informed by strong national and global links. This report discusses the background to the research project, presents the key research questions, and discusses some of the methods chosen to date to capture young people's rich experience of music learning.

The most important premise upon which the study is based is that music is basic to our human design:⁶ everyone listens to music in one form or another, many define themselves in terms of it, and most significantly, people view musical engagement and participation in music as crucial to their everyday life.⁷ As one of the most demanding tasks for the human central nervous system, formal learning opportunities in music offer young people numerous personal and social benefits, including more developed intellectual and cognitive-emotional awareness, enhanced self-regulating behaviour, increased social responsibility, improvements in verbal memory, verbal and nonverbal reasoning ability, and better mental health.⁸ However, a recent Commonwealth Government review shows that the situation in Australian music education has reached a 'critical point.'⁹ Alongside the widely held public view that music

⁴ *National Cultural Policy Discussion Paper*.

⁵ Gary E. McPherson, Jane W. Davidson, Margaret S. Barrett and Robert Faulkner, *Creating Musical Futures in Australian Schools and Communities: Refining Theory and Planning for Practice through Empirical Innovation*, Australian Research Council Discovery Project Grant, 2010–2013, \$373,000, University of Melbourne.

⁶ Graham F. Welch and Pauline Adams, *How Is Music Learning Celebrated and Developed?* (Southwell, Notts., UK: British Educational Research Association, 2003).

⁷ Adrian C. North, David J. Hargreaves and Jon J. Hargreaves, 'Uses of Music in Everyday Life,' *Music Perception: An Interdisciplinary Journal* 22.1 (2004): 41–77.

⁸ Eckart O. Altenmuller, and Gary E. McPherson, 'Motor Learning and Instrumental Training,' *Neurosciences in Music Pedagogy*, ed. W. Gruhn and F. Rauscher (New York: Nova Biomedical Books, 2008) 121–44; Marie Forgeard, Ellen Winner, Andrea Norton and Gottfried Schlaug, 'Practicing a Musical Instrument in Childhood is Associated with Enhanced Verbal Ability and Nonverbal Reasoning,' *PLoS ONE* 3.10 (2008): e3566; C. Bret Hendricks, Beth Robinson, Loretta J. Bradley and Kenneth Davis, 'Using Music Techniques to Treat Adolescent Depression,' *Journal of Humanistic Counseling, Education and Development* 38.1 (1999): 39–46; Nikki S. Rickard, Jorge T. Vasquez, Fintan Murphy, Anneliese Gill and Samia R. Toukhsati, 'Benefits of a Classroom Based Instrumental Music Program on Verbal Memory of Primary School Children: A Longitudinal Study,' *Australian Journal of Music Education* 1 (2010): 36–47; Glenn E. Schellenberg, 'Exposure to Music: The Truth About the Consequences,' *The Child as Musician: A Handbook of Musical Development*, ed. Gary E. McPherson (Oxford: OUP, 2006) 111–34.

⁹ Robin Pascoe, Sam Leong, Judith MacCallum, Elizabeth Mackinlay, Kathryn Marsh, Bob Smith, Terry Church and Anne Winterton, *National Review of School Music Education: Augmenting the Diminished* (Barton, ACT: Department of Education, Science and Training, 2005).

is not a subject worthy of serious study,¹⁰ the review illustrates the gap between evidenced benefits from music education and the value of it as a school subject, and the absence of music opportunities in Australian schools and communities.

The 'Creating musical futures in Australian schools and communities' research project forms a logical and much needed extension of the Commonwealth Government's National Review of Music Education (NRME).¹¹ The NRME, which received the largest public response to a government inquiry ever in Australia, established an immediate priority for improving and sustaining the quality and status of music education, based on stark evidence about the shortcomings and 'inequalities' in school music.¹² Addressing this crisis, this research program aims to produce new knowledge concerning music education in Australian schools and communities through innovative investigation and theoretical refinement that can be used to develop and underpin strategies for readdressing the recognised inequalities of present music education provision.

Gary McPherson and Jane Davidson have published extensively on their twelve-year longitudinal study of Australian music instrument learners,¹³ in addition to a more recent eight-country motivational study documenting beliefs and attitudes about music as a school subject (and in comparison with other school subjects).¹⁴ Margaret Barrett has focused on the developmental pathways and the meanings, values and beliefs that young Australians attribute to their participation in arts activities in various contexts.¹⁵ Robert Faulkner has looked at contrasts and similarities between in-school and out-of-school musical experiences and their impact on values and identities among West Australian teenage girls.¹⁶ Results from these researchers highlight the need for a reconceptualisation of current literature that can be used to explain the core elements of musical development, particularly young people's perceptions about music as an area of learning and the positive attributes they acquire as a result of their learning in music.

¹⁰ Gary E. McPherson, 'What Research Tells us about the Meaning of Music and Music Making,' *Beijing International Forum on Music Education 2006: A Dialogue of Research and Policy Development May 15–17 2006*, ed. Gary E. McPherson (Chinese Music Press).

¹¹ Pascoe, et al., National Review of School Music Education.

¹² Pascoe, et al., National Review of School Music Education, v.

¹³ Jane W. Davidson and Robert Faulkner, 'Music in Our Lives: Syzygistic Influences for Achievement in Music,' *Beyond Talent or Practice: The Complexity of Greatness*, ed. S.B. Kaufmann (New York: OUP, in preparation); Robert Faulkner, Jane W. Davidson and Gary E. McPherson, 'The Value of Data Mining in Music Education Research and Some Findings from Its Application to a Study of Instrumental Learning During Childhood,' *International Journal of Music Education* 28.3 (2010): 212–30; Gary E. McPherson and Jane W. Davidson, 'Musical Practice: Mother and Child Interactions During the First Year of Learning an Instrument,' *Music Education Research* 4 (2002): 141–56; Gary E. McPherson and Jane W. Davidson, 'Playing an Instrument,' *Child as Musician*, ed. McPherson, 331–54; Gary E. McPherson, Jane W. Davidson and Robert Faulkner, *Music in Our Lives: Redefining Musical Development, Ability and Identity* (Oxford: OUP, in press).

¹⁴ Gary E. McPherson and Susan A. O'Neill, 'Students' Motivation to Study Music as Compared to Other School Subjects: A Comparison of Eight Countries,' *Research Studies in Music Education* 32.2 (2010): 101–37.

¹⁵ Margaret S. Barrett, 'Musical Narratives: A Study of a Young Child's Identity Work in and through Music-Making,' *Psychology of Music* 39.4 (2011): 403–23; Margaret S. Barrett, 'Sounding Lives in and through Music,' *Journal of Early Childhood Research* 7.2 (2009): 115–34; Margaret S. Barrett and Heather M. Smigiel, 'Awakening the "Sleeping Giant"? The Arts in the Lives of Australian Families,' *International Journal of Education and the Arts* 4.4 (2003) 1–18.

¹⁶ Robert Faulkner, 'Girlie Music? Teenage Girls' Musical Behaviour and Identity in and out of School,' *Australian Journal of Music Education* (submitted).

By emphasising individual, social and cultural contexts for both short and long term development, such an explanation would potentially offer a unified positive framework that could be used to create a description of the changes required for a more widespread public understanding of what children gain as a result of learning music. Work of this type is especially important given findings that even though not all children will continue formal active engagement with music into adulthood, they will all use music in various ways throughout their lives,¹⁷ and that internal assets such as a commitment to learning, positive values, social competencies, and positive musical identities appear to be directly related to external influences such as support and encouragement, personal empowerment, socially referenced boundaries and expectations, and students' constructive use of their time.¹⁸

The core elements identified in the aforementioned research that contribute to an individual developing an initial interest in, and then sustaining their engagement with, music include the emotional environment in which people learn music, their personal beliefs regarding the value of the activity and their level of competence to achieve desired outcomes in music, and the significant role of their parents and teachers in nurturing their interests. These elements are elaborated below.

Musical engagement is inextricably linked with an emotional component.¹⁹ Listening to music, for example, can result in intense feelings of pleasure, which young people constantly use to fulfil their emotional needs or to relieve tension and stress through the selection of music downloads for their portable mp3 music players.²⁰ When positive, these feelings can fuel a deep commitment to musical participation. When negative, they can provide a powerful disincentive that limits musical involvement.²¹ This is seen in research with young school-aged musicians both in Australia and the United States, where 'Flow' experiences (that is, being so deeply engrossed in a task such that a sense of time or worry of failure disappear)²² are important to students' emotional wellbeing and securing their commitment to future musical involvement.²³ Understanding the emotional environment in which young people learn music, and the array

¹⁷ Gary E. McPherson, 'Children's Motivation to Study Music in Schools,' keynote address, 40th Anniversary Conference of the Australian Society for Music Education (ASME, 2007); Welch and Adams, *How Is Music Learning Celebrated and Developed?*

¹⁸ Susan A. O'Neill, 'Youth Music Engagement in Diverse Contexts,' *Organized Activities as Contexts of Development: Extracurricular Activities, after-School and Community Programs*, ed. Joseph L. Mahoney, Reed W. Larson and Jacquelynn S. Eccles (Mahwah, NJ: Lawrence Erlbaum Associates, 2005) 255–74; Susan A. O'Neill, 'Positive Youth Music Engagement,' *Child as Musician*, ed. McPherson, 461–74.

¹⁹ Patrick N. Juslin and John A. Sloboda, ed., *Music and Emotion: Theory and Research* (Oxford: OUP, 2001).

²⁰ John A. Sloboda and Susan A. O'Neill, 'Emotions in Everyday Listening to Music,' *Music and Emotion: Theory and Research*, ed. Patrick N. Juslin and John A. Sloboda, Series in Affective Science (New York: OUP, 2001) 415–29.

²¹ McPherson, Davidson and Faulkner, *Music in our Lives*; Welch and Adams, *How is Music Learning Celebrated and Developed?*

²² Arne Dietrich and Oliver Stoll, 'Effortless Attention, Hypofrontality, and Perfectionism,' *Effortless Attention: A New Perspective in the Cognitive Science of Attention and Action*, ed. Brian Bruya (Cambridge, MA: Massachusetts Institute of Technology, 2010) 159–78.

²³ Gary E. McPherson, 'Commitment and Practice: Key Ingredients for Achievement During the Early Stages of Learning a Musical Instrument,' *Bulletin of the Council for Research in Music Education* 147 (2000): 122–7; Susan A. O'Neill and Gary E. McPherson, 'Motivation,' *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning*, ed. Richard Parncutt and Gary E. McPherson (New York: OUP, 2002) 31–46; Robert H. Woody and Gary E. McPherson, 'Emotion and Motivation in the Lives of Performers,' *Handbook of Music and Emotion*, ed. Patrick N. Juslin and John Sloboda (New York: OUP, 2010) 401–24.

of emotions they experience whilst engaged in these learning experiences, will help pave the way for more powerful explanations of the intrinsic appeal of music as an area of learning, of why some children choose to be involved with music more intensively in formal or informal learning situations, and why certain types of emotional climates in homes and schools are more conducive to effective musical learning than others.²⁴ This is a critical element in developing music education and in finding better ways for teachers to link the here and now of everyday life—complete with its uncertainties and daily stresses—with the lived experiences of music as a vital part of students' lives.

In the psychological literature on motivation, studies concerned with self-beliefs are so prevalent that they dominate the field. Yet the powerful explanations that arise from close examination of this literature have rarely been explored as they relate to learning music. McPherson and Davidson's longitudinal study demonstrated that music learners experienced greater psychological needs satisfaction when they were most engaged, and less psychological needs satisfaction at the time they ceased.²⁵ At the time of ceasing, they felt less capable and less autonomous, and related less well to their teachers.²⁶ Because music is often a subject of choice, students are influenced by their beliefs about their ability and by their interest in different subjects more than in academic areas of learning.²⁷ Their decisions are also shaped by parents' aspirations and teachers' predictions about their future performance.²⁸

All those who work within an educational context, and especially in elective subjects such as music, have witnessed the way that students' decisions are affected by their perceptions of, and beliefs about, the subjects themselves. These perceptions concern their intrinsic merits and their inherent difficulty and utility value, as a potential source of high marks or of future employment. Some of the greatest mysteries in music education concern how students' beliefs in their own abilities are shaped and change over time, and why so few are able to move from the initial sampling stage of experiencing music for fun, through to greater technical and expressive competence as they begin to specialise in music or even make choices that might lead to a life-long engagement as recreational, amateur or professional musicians. At present, virtually no evidence exists to document how students' musical identities, or their identities more broadly, are shaped by the positive developmental assets they have acquired through their participation in music. While thousands of studies have been conducted on compulsory academic areas of learning, the literature in elective subjects such as music is embarrassingly scant. We believe that our studies will impact significantly on conceptions of teaching and learning across all areas of education, and thereby positively augment educational debates.

²⁴ Jane W. Davidson and Karen Burland, 'Musician Identity Formation,' *Child as Musician*, ed. McPherson, 475–90; Jane W Davidson and Nicole Jordan, 'Private Teaching, Private Learning: An Exploration of Music Instrument Learning in the Private Studio, Junior and Senior Conservatories,' *International Handbook of Research in Arts Education*, ed. Liora Bresler, Springer International Handbooks of Education 16 (Dordrecht, Netherlands: Springer, 2007) 729–54.

²⁵ Gary E. McPherson, 'The Role of Parents in Children's Musical Development,' *Psychology of Music* 37.1 (2009): 91–110.

²⁶ Paul Evans, A Longitudinal Study of Social-Cognitive Influences on Engagement in Music Activities, PhD thesis, University of Illinois, 2008.

²⁷ McPherson and Davidson, 'Playing an Instrument'; McPherson, Davidson and Faulkner, *Music in Our Lives*.

²⁸ McPherson, 'Role of Parents'; McPherson and Davidson, 'Musical Practice'; McPherson and Davidson, 'Playing an Instrument.'

Parents are crucial to a child's ongoing success in all areas of their education,²⁹ so given the primacy of the home environment in student success in learning, it is alarming that so few studies have attended to the crucial parent-child relationship in the domain of music. Results show that within the first few months of commencing, mothers make an assessment of their child's ability to cope with music studies, as well as their own capacity to devote energy to regulating their child's practice through continual reminders and encouragement to practise an instrument.³⁰ Some mothers withdraw support early, possibly based on an assessment that their child may not be able to cope emotionally, or because they are unwilling themselves to invest the time and effort needed to support the regulation of their child's daily schedule.³¹ It is not surprising, therefore, that wide differences in performance ability and intrinsic motivation appear soon after children start learning their instruments.³²

The strong causal connection between parental support (defined as their involvement in schooling, their perceptions of their child's competence, and the relatedness between parents and child) and academic achievement highlights a major concern of the educational community.³³ Parents often consider music to have high intrinsic value, but low attainment and utility value.³⁴ Consequently, they might believe that their child would enjoy and find music interesting during their time at school, but they do not generally believe that studying music is as important for their child as the 'academic' school subjects, nor do they always believe that music will necessarily be useful for their child long-term, in terms of preparation for life after school. Support for music therefore may not be a priority for parents. Examining very precisely how music is perceived by parents (in comparison with other school subjects) will be a crucial element in the study.³⁵ This novel work detailing and defining the emotional climate in homes will help to determine what can either facilitate or hinder the musical progress of young learners.

Schools are institutions designed to equip young people with skills and knowledge for life.³⁶ Increasingly, these are not limited to future vocational and employment opportunities—though these are a very high priority—but also include life-skills that contribute to healthy living and wellbeing, to good self-management, and to the ability to relate and interact with other people. Given that music is such a pervasive and widespread feature of cultural and leisure activities across all societies,³⁷ it seems reasonable to propose that music ought to have a significant role in the curriculum. Sporting and physical activities might be considered comparable to music as culturally popular behaviours, and advocates have been successful in positioning these activities as essential to the education of all young people in schools, based on the proposition

²⁹ McPherson and Davidson, 'Musical Practice.'

³⁰ McPherson, 'Role of Parents'; McPherson and Davidson, 'Musical Practice.'

³¹ McPherson, 'Role of Parents.'

³² McPherson and Davidson, 'Musical Practice'; McPherson and Davidson, 'Playing an Instrument.'

³³ Eva M. Pomerantz, Wendy S. Grolnick and Carrie E. Price, 'The Role of Parents in How Children Approach Achievement,' *Handbook of Competence and Motivation*, ed. Andrew J. Elliot and Carol S. Dweck (New York: Guilford Press, 2005) 259–78.

³⁴ McPherson, 'Role of Parents.'

³⁵ McPherson, 'Motivation to Study Music.'

³⁶ MCEETYA, *Melbourne Declaration on Educational Goals for Young Australians* (Carlton South, Vic: Curriculum Corporation, Ministerial Council on Education, Employment, Training and Youth Affairs, 2008).

³⁷ Welch and Adams, *How Is Music Learning Celebrated and Developed?*

that they foster a healthy lifestyle and levels of physical fitness.³⁸ There is no suggestion that simply observing sport has the same potential benefits as active participation.

In schools, however, the number of students studying and participating in music, especially in the upper years of high school, is extremely low.³⁹ Are the challenges of learning music too tough or are approaches to learning music in schools inconsistent with young people's expectations and needs? After all, many young people find great success in participating in music in informal settings,⁴⁰ and a remarkable revolution in music technologies and cultural industries has seen a huge growth in their consumption of music as listeners.⁴¹ Is it that society has come to believe that music in schools is only useful for the exceptionally devoted who may pursue it as a career, even though a lack of exceptional commitment is never accepted as a reason to exclude the general school population from physical and sporting activities? Is the development of musical skills any different to the development of skills in other domains? Are the wellbeing and health benefits from participation in music merely not sufficiently promoted as they are in sports? Are the roles music can play in creating community and sustaining social cohesion acknowledged and prioritised? Considering the aforementioned benefits of active music engagement for individual cognitive development and wellbeing, as well as the social benefits afforded to the wider community, this research agenda provides an important contribution to the government's National Research Priority "Promoting and maintaining good health",⁴² as it will investigate how an effective music education can support Australia's individuals and families to lead healthy, productive and fulfilling lives.

We know little about the beliefs, attitudes and values that have led to the failure of music education in Australian schools. The fundamental concern of this research is to address the key recommendation of the 2005 NRME, which is to raise the status of music in schools and improve the equity of access, participation and engagement in school music for all Australian students. The new Australian Curriculum recognises that education in each of five arts subjects (Music, Visual Arts, Drama, Dance and Media Arts) will be an entitlement for all Australian school children.⁴³ Nevertheless, the notional allocation of teaching hours that has guided the writing of the Australian Arts Curriculum (for example, 100 hours for all five arts subjects across Years 3–4) does not appear to indicate a dramatic change in policy or practice. Furthermore, seven general capabilities are embedded across the Australian Curriculum and whilst several of them may be seen as alluding to arts education, artistic capabilities are not explicitly acknowledged as knowledge, skills and behaviours that can be deployed and applied across the curriculum in the ways that the extensive Australian review of arts in Australian education suggests.⁴⁴

³⁸ MCEECDYA, *Health and Physical Education* (Melbourne: Curriculum Corporation, Ministerial Council on Education, Early Child Development and Youth Affairs, 2007).

³⁹ Alexandra Lamont and Karl Maton, 'Choosing Music: Exploratory Studies into the Low Uptake of Music GCSE,' *British Journal of Music Education* 25.3 (2008): 267–82; Pascoe, et al., *National Review of School Music Education*; R. Walker, *Music Education: Cultural Value, Social Change and Innovation* (Springfield, IL: Charles C. Thomas, 2008).

⁴⁰ Lucy Green, *Music, Informal Learning and the Schools: A New Classroom Pedagogy* (Aldershot, Hants.: Ashgate, 2008); McPherson, Davidson and Faulkner, *Music in Our Lives*.

⁴¹ North, Hargreaves and Hargreaves, 'Music in Everyday Life.'

⁴² *Australia's National Research Priorities* (Canberra: Commonwealth of Australia, 2002).

⁴³ ACARA, *Shape of the Australian Curriculum: The Arts* (Sydney: Australian Curriculum, Assessment and Reporting Authority, 2011).

⁴⁴ Ewing, *Arts and Australian Education*.

Under the new Australian Curriculum, specific allocation of time for Arts learning, including music, will remain a school-based decision. It is the case, despite the bleak picture exposed by the NRME, that some Australian schools consider music a subject of high importance and value, where a large proportion of the student population is musically active in ensembles, extra-curricular activities and elective classes. This leads us to ask why such discrepancies occur across education systems, what do these schools do to cater for the needs of their students, and what can we learn from those few music-rich schools that would help improve music education practice across Australia?

To address these questions, we intend to investigate successful school music programs, in order to understand more precisely how they cater for their students' needs through the provision of resources, logistics (adequate time during and after school hours), and how they create environments that encourage and cater for the needs of musically motivated students. We plan to use this information to help lay the foundation for the educational mobilisation required to update and redefine thinking about the role and purpose of music in young people's lives and in education.

The major innovation of the research agenda of the three universities is that it will develop a new theory through a program of interconnected, interdisciplinary studies unique in music education research. The work seeks an original multi-perspective view of musical development as a kaleidoscope of temporal, contextualised, and multi-variable relationships between personal, social and cultural experiences and emerging musical competencies. We shall attempt to link this comprehensive theory of musical experience with school and community practice, often seen as irrelevant to young people's real musical lives and vice versa. The work grows logically from the research team's collective interest in music development and musical engagement in and beyond school environments.

A series of interconnecting studies will adopt multidisciplinary methods to:

1. Compare young people's personal beliefs and everyday life experiences with music, and their motivational profiles toward learning music, with other non-musical life experiences and aspects of their learning;
2. Investigate the developmental assets, both personal and social, that are acquired from learning music and that have positive consequences for music learners' emotional wellbeing and social development;
3. Examine the music learner's family, peer group, teacher/tutor and other personal and social dynamics in order to understand more precisely the factors that facilitate or hinder music learning; and
4. Profile schools and other educational contexts (both formal and informal) in order to establish the main enabling conditions and factors that are sufficient for personal commitment to, engagement with, and flourishing in, music related learning opportunities.

In order to understand precisely how and why there is significant variation between beliefs, attitudes and motivational profiles toward music learning (in and outside of school) as compared to other areas of school learning, a large-scale student survey study has commenced sampling school students in Grades 5–12. In this survey students indicate their beliefs about seven subjects—English, maths, science, history, PE/health, art, and music—according to the

role and function of each school subject and how it might equip them after they leave school; their beliefs and judgments about their capabilities to succeed in each school subject; the reasons why they choose to engage in and devote effort to each school subject; and the value of each school subject.

This study expands on techniques used in the eight-country study,⁴⁵ using Expectancy-Value Motivation Theory,⁴⁶ to profile perceptions of interest, importance, usefulness, competence for, and mastery of, each subject.⁴⁷ The methodology has been expanded to include questions to establish the main reason why students are or are not learning a musical instrument or singing, according to Self-Determination Theory.⁴⁸ The surveys have been administered on iPads and online using 'PollDaddy',⁴⁹ which has been met with interest and a sense of engagement by the students involved.

Other aspects of the research agenda are being formulated using mixed-methods approaches to obtain qualitative and quantitative information from highly involved music students in case studies of various music education contexts across Australia. Questionnaire, interview and diary protocols will be completed by students, parents and teachers to reflect on the experiences that assist and define each music learner's transitions across the music learning spectrum: for some, their initial sampling in the instrument; for others, the factors which support them to make the significant investment to prioritise their learning through high quality experiences and training to achieve musical expertise at an elite level.⁵⁰ The work incorporates into its design a range of probing and triangulated methodologies, which are innovative in their capacity to test the beliefs, skills and interests of school-aged students and their parents and teachers, across a number of dimensions of their learning. The investigation will inspire new theoretical developments and have practical implications in the domain of music, but also have ramifications for general arts, psychology and education research and practice on an international scale.

The agenda defined in the research program discussed here aims to acknowledge the urgency for redesigning music education in ways that will celebrate the heritage of pre-existing models of music education, but refocus the discipline so that its goals and teaching methodologies relate more explicitly to the recommendations of the NRME. This project aims to construct the most complete picture of children's motivation to study music (as compared to

⁴⁵ McPherson and O'Neill, 'Students' Motivation to Study Music.'

⁴⁶ Jacquelynne S. Eccles, Susan A. O'Neill and Allan Wigfield, 'Ability Self-Perceptions and Subjective Task Values in Adolescents and Children,' *What Do Children Need to Flourish? Conceptualizing and Measuring Indicators of Positive Development*, ed. Kristin A. Moore and Laura Lippman (New York: Springer, 2005) 237–50.

⁴⁷ Jacquelynne S. Eccles, 'Expectancy, Values, and Academic Behaviours' *Achievement and Achievement Motives: Psychological and Sociological Approaches*, ed. J.T. Spence (San Francisco: Freeman, 1983) 75–146; John McCormick and Gary E. McPherson, 'Expectancy-Value Motivation in the Context of a Music Performance Examination,' *Musicae Scientiae Special Issue* (2007): 37–52; Allan Wigfield, Jacquelynne S. Eccles, Kwang Suk Yoon, Rena D. Harold, Amy J.A. Arbreton, Carol Freedman-Doan and Phyllis C. Blumenfeld, 'Changes in Children's Competence Beliefs and Subjective Task Values across the Elementary School Years: A 3-Year Study,' *Journal of Educational Psychology* 89.3 (1997): 451–69.

⁴⁸ Richard M. Ryan and Edward L. Deci, 'Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development and Well-Being,' *American Psychologist* 55.1 (2000): 68–78.

⁴⁹ <http://polldaddy.com>.

⁵⁰ Gary E. McPherson and Andreas C. Lehmann, 'Exceptional Musical Abilities—Child Prodigies,' ed. Gary E. McPherson and Graham Welch, *Oxford Handbook of Music Education*, vol. 2 (New York: OUP, in press).

other areas of learning) ever attempted, and to establish international leadership for Australian music education research. The result will be a set of studies that acknowledge the complex social, personal and emotional changes that occur during childhood, which impact on young people's lives throughout school and beyond, as well as the life-long sense of wellbeing and enjoyment that artistic appreciation and participation in music can offer, independently of whether or not fluency and competency is achieved during childhood. This research programme will benefit schools, communities and educational leaders by providing a range of evidence to support the value of music in education. It is hoped that this will spark new ideas to ensure that future youth have access and opportunities to meaningfully and actively engage in music activities both within formal school systems, and the wider community.