



University  
of Glasgow

Jaap, Angela Sarah (2011) *Recognising and developing musical gift and talent*. PhD thesis.

<http://theses.gla.ac.uk/2994/>

Copyright and moral rights for this thesis are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the Author

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the Author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given

Recognising and developing musical gift and talent

Angela Sarah Jaap  
BEd Music (Honours)

Submitted in fulfilment of the requirements for the degree of  
Doctor of Philosophy

School of Education  
College of Social Sciences  
University of Glasgow

August 2011

## Abstract

The focus of this thesis is an exploration of how musical talent is developed. It also considers the usefulness of the terms *gift* and *talent*. The research examines contemporary issues relating to the recognition and musical development of gifted and talented young musicians in Scotland. While the terms gift and talent are applied regularly to describe the abilities of learners, they are societal constructs (Borland 2005) used to categorise children's learning behaviours. These constructs can therefore influence an individual's self-concept and approach to tasks (Dweck 2000) leaving the individual to believe that he/she possesses ability or not.

Although this thesis does not attempt to re-conceptualise the construct of musical gift or talent, it aims to provide a greater understanding of how musical talent is developed in young people. It does this through literature analysis and empirical data collection. The thesis begins by analysing research literature to explore constructs of gift and talent, before relating this analysis to music-specific literature and to the empirical data collected during the course of the doctoral research. The empirical data was collected from four sources: professional musicians, current music students, teaching staff (music instructors/teachers and project co-ordinators/course leaders) and from pupils at a National Centre of Excellence (NCE).

Through analysing literature on high ability from both general high ability studies and music-specific studies, it became apparent that there has been a development in thinking over the course of the 20<sup>th</sup> century, with a move away from ability being associated with IQ scores towards a more broadly-based consideration of the needs of the individual learner. However, the research literature indicates that teachers and society seem to focus more on the negative aspects of labelling children as gifted and talented and on the implications for the learner as well as those around them. In terms of the original data gathered from professional musicians, teachers, programme leaders/coordinators, students and school pupils, a more contemporary concept of musicianship has emerged. While the terms 'gifted' and 'talented' were used by the participant groups, the terms were not solely associated with music. Technical ability and proficiency were identified as desirable for music talent development by some participants. Equally important were more general skills such as interest, communication, people- and self-management and team work.

Therefore the gifted, talented or highly able musician, to these participants, not only possess a high level of musical skill but a ratio of musical, general and transferable skills.

The findings from this thesis suggest that the development of musical ability is not purely reliant on musical technique, but consists of a variety of different 'general' transferable skills. In addition to this, the doctoral research argues for the importance of the role of self-efficacy and resilience in attaining learning goals and achieving learning aims for pupils and students. The participants in this research were able to identify particular events which they consider either enhanced or delimited their experiences, noting how they managed each situation in order to manage their development. From this it would appear that if a learner can achieve a high level of self-efficacy they might be more likely to successfully develop their ability, regardless of the subject area in which the ability is shown.

## Table of Contents

<b>Abstract</b> .....	<b>ii</b>
<b>List of Tables</b> .....	<b>viii</b>
<b>List of Figures</b> .....	<b>ix</b>
<b>Acknowledgements</b> .....	<b>x</b>
<b>Dedication</b> .....	<b>xii</b>
<b>Declaration</b> .....	<b>xiii</b>
<b>List of Abbreviations</b> .....	<b>xiv</b>
<b>Chapter 1 - Introduction</b> .....	<b>2</b>
<i>Aims and research questions</i> .....	3
<i>Structure of the thesis</i> .....	5
<b>Chapter 2 - Considering the terms</b> .....	<b>9</b>
<b>Chapter 3 - Definition, identification and development: exploring Gagné’s concept of innate ability</b> .....	<b>15</b>
<b>Gagné’s construct of gift and talent</b> .....	<b>16</b>
<i>Measurement and the 10-per-cent threshold</i> .....	19
<i>Transforming gift into talent</i> .....	20
<b>Critique of Gagné’s model</b> .....	<b>23</b>
<b>Conclusion</b> .....	<b>25</b>
<b>Chapter 4 - Holistic approaches to talent development: the work of Renzulli and Winstanley</b> .....	<b>27</b>
<b>Joseph Renzulli and the Enrichment models</b> .....	<b>27</b>
<i>The basis of Renzulli’s definition</i> .....	28
<i>Schoolhouse giftedness</i> .....	29
<i>Creative-productive gift</i> .....	29
<b>The Three-Ring Conception of Giftedness</b> .....	<b>30</b>
<i>Above average ability</i> .....	31
<i>Task Commitment</i> .....	32
<i>Creativity</i> .....	33
<b>Enrichment</b> .....	<b>33</b>
<b>Critique of Renzulli’s theory</b> .....	<b>35</b>
<b>Carrie Winstanley and the ingredients of challenge</b> .....	<b>39</b>
<i>Elitism and challenge</i> .....	41
<i>Challenge</i> .....	43
<b>Critique of Winstanley’s theory</b> .....	<b>45</b>
<i>Learning disposition and challenge</i> .....	47
<b>Conclusion</b> .....	<b>50</b>

<b>Chapter 5 - Contexts for talent development: capability, self-efficacy and mindsets .....</b>	<b>52</b>
<b>Capability .....</b>	<b>52</b>
<b>Self-efficacy .....</b>	<b>54</b>
<b>Mindset: possessing the attitude and interest to develop .....</b>	<b>57</b>
<b>Conclusion .....</b>	<b>59</b>
<b>Chapter 6 - Contexts for the development of musical talent.....</b>	<b>61</b>
<b>Identification of musical ability .....</b>	<b>61</b>
<b>Contexts for developing musical ability.....</b>	<b>64</b>
<i>Parental influence and parental involvement .....</i>	<i>66</i>
<i>Role of teachers, teaching and private tuition .....</i>	<i>69</i>
<i>Teaching and learning in the classroom .....</i>	<i>70</i>
<i>Extracurricular activities .....</i>	<i>72</i>
<i>Private tuition.....</i>	<i>72</i>
<i>Informal, peer and community influences .....</i>	<i>73</i>
<b>Conclusion .....</b>	<b>74</b>
<b>Chapter 7 - Methodology .....</b>	<b>77</b>
<b>Refining an appropriate qualitative methodology .....</b>	<b>78</b>
<b>Developing appropriate data collection methods .....</b>	<b>79</b>
<b>Claims to truth and validity .....</b>	<b>81</b>
<b>Empirical data collection strands .....</b>	<b>83</b>
<i>Empirical Strands 1, 2 and 3: Semi-structured expert interviews, skilled interview technique</i> <i>and questionnaires.....</i>	<i>83</i>
<i>Questionnaires .....</i>	<i>85</i>
<i>Empirical Strand 4: Case study and focus group .....</i>	<i>86</i>
<b>Ethical protocol and rights of access.....</b>	<b>89</b>
<b>Conclusion .....</b>	<b>94</b>
<b>Chapter 8 - The professional musicians.....</b>	<b>95</b>
<b>Perceptions of gift and talent .....</b>	<b>98</b>
<b>Gifted or talented?.....</b>	<b>102</b>
<b>Identification and recognition of ability .....</b>	<b>104</b>
<b>Characteristics of giftedness .....</b>	<b>106</b>
<b>Characteristics of talent.....</b>	<b>108</b>
<b>The role of chance in talent development.....</b>	<b>110</b>
<b>The role of self-efficacy in talent development .....</b>	<b>112</b>
Verbal persuasion .....	114
<b>Performance accomplishments: the positive and the negative.....</b>	<b>116</b>
<i>The role of the school.....</i>	<i>119</i>
<b>Vicarious experiences.....</b>	<b>124</b>
<b>Emotional arousal and self-efficacy .....</b>	<b>130</b>
<b>Analysis and conclusion .....</b>	<b>132</b>

<b>Chapter 9 - Programme leaders/course co-ordinators, Conservatoire Music staff and School teachers and instructors.....</b>	<b>134</b>
<b>The participants .....</b>	<b>134</b>
<i>Conceptualisation of musical talent.....</i>	137
<b>Recognising and identifying gift and talent.....</b>	<b>139</b>
<i>Is formal identification necessary?.....</i>	139
<i>Natural recognition .....</i>	144
<b>Teacher and instructor identity .....</b>	<b>146</b>
<i>Ambivalent teacher identities .....</i>	148
<i>Positive teacher identities.....</i>	149
<b>Nurturing talent.....</b>	<b>150</b>
<b>Analysis and conclusion .....</b>	<b>154</b>
<b>Chapter 10 - Potential professionals: Conservatoire and University Students.....</b>	<b>156</b>
<b>Conceptualisations of musical talent .....</b>	<b>157</b>
<i>Music-specific skills .....</i>	159
<i>Communication .....</i>	160
<b>Contexts for talent development.....</b>	<b>161</b>
<i>Family.....</i>	162
<b>Teaching contexts .....</b>	<b>165</b>
<i>School-based provision .....</i>	165
<i>Education structures.....</i>	168
<i>Wider school activities.....</i>	169
<i>Specialist music schools and private tuition .....</i>	170
<b>Analysis and conclusion .....</b>	<b>174</b>
<b>Chapter 11 - Musical development – a case study .....</b>	<b>177</b>
<b>Background.....</b>	<b>177</b>
<b>Data gathering .....</b>	<b>178</b>
<b>Findings from the questionnaire data .....</b>	<b>180</b>
<i>Concepts of talent .....</i>	181
<i>Support and encouragement: family and the Centre .....</i>	183
<b>Findings from the focus group data .....</b>	<b>187</b>
<i>Area 1: Qualities which make their favourite musician(s) appeal to them.....</i>	187
<i>Area 2: When did you first notice that you had ability? .....</i>	188
<i>Area 3: Who helped you develop your musical ability?.....</i>	190
<i>Area 4: How important has formal music teaching/the Centre of Excellence been to you?..</i>	192
<b>Talent: the importance of attitude and motivation .....</b>	<b>193</b>
<b>Talent: the role of the teacher .....</b>	<b>195</b>
<b>Musical identity and culture .....</b>	<b>197</b>
<b>Self-directed learning and developing capability.....</b>	<b>199</b>

<b>Chapter 12 - Conclusion.....</b>	<b>205</b>
<b>How is gift and talent conceptualised in theory? .....</b>	<b>206</b>
<b>How is gift and talent conceptualised by musicians, performers and teachers/instructors? .....</b>	<b>206</b>
<b>How is musical ability identified? .....</b>	<b>206</b>
<b>How is musical ability nurtured? .....</b>	<b>206</b>
<b>Relationship of the findings to established literature and research .....</b>	<b>207</b>
<b>Recommendations for further research .....</b>	<b>210</b>
<b>Conclusion .....</b>	<b>211</b>
<b>Appendices.....</b>	<b>212</b>
<i>Appendix 1: Interview schedules, questionnaires and focus group outline .....</i>	<i>213</i>
<i>Appendix 1.1: Musicians/Composer questionnaire.....</i>	<i>214</i>
<i>Appendix 1.2: Music Teachers/Instructors at School and Conservatoire .....</i>	<i>216</i>
<i>Appendix 1.3: Programme Leaders/Course Co-ordinators (PLCs) .....</i>	<i>218</i>
<i>Appendix 1.4: Conservatoire/University Student Questionnaire .....</i>	<i>219</i>
<i>Appendix 1.5A: Pupil Questionnaire .....</i>	<i>224</i>
<i>Appendix 1.5B: Focus group outline.....</i>	<i>228</i>
<b>Appendix 2: Musical ability tests and methods for collecting data on musical ability.....</b>	<b>229</b>
<i>Arnold Bentley (1966).....</i>	<i>230</i>
<i>The Musical Characteristic Scale from the Scales for Rating the Behavioral Characteristics of Superior Students (Renzulli et al., 1976).....</i>	<i>233</i>
<i>School of Instrumental Music (Instrumental &amp; Vocal Music for Western Australian Government Schools, Australia).....</i>	<i>236</i>
<i>Joanne Haroutounian (1995; 2002).....</i>	<i>238</i>
<i>Office of Superintendent of Public Instruction (OSPI) Developed Performance Assessments for the Arts (Washington, United States of America) (2008-) .....</i>	<i>250</i>
<b>References.....</b>	<b>253</b>
<b>Bibliography .....</b>	<b>265</b>

## List of Tables

<i>Table x.1</i>	<i>Sources of data collection and research questions</i>	<i>p 7</i>
<i>Table 3.1</i>	<i>Proposed metric-based (MB) system of levels within gifted or talented populations</i>	<i>p 20</i>
<i>Table 8.1</i>	<i>Participating musicians by genre</i>	<i>p 95</i>
<i>Table 8.2</i>	<i>Method of participation by genre</i>	<i>p 96</i>
<i>Table 8.3</i>	<i>Musicians' terminology associated with 'gift' and 'talent' (with frequency of response per genre)</i>	<i>p 98-99</i>
<i>Table 9.1</i>	<i>Schools invited to participate in research</i>	<i>p 133</i>
<i>Table 9.2</i>	<i>Conservatoire music teachers/instructors</i>	<i>p 134</i>
<i>Table 9.3</i>	<i>Do you use the terms 'gift' or 'talent'? If not what do you use?</i>	<i>p 135</i>
<i>Table 10.1</i>	<i>Conservatoire and University-based student participation</i>	<i>p 155</i>
<i>Table 10.2</i>	<i>Conservatoire and University-based programme of study (in relation to the 63 students who answered this question)</i>	<i>p 155</i>
<i>Table 10.3</i>	<i>Students' conceptualisation of the gifted/talented musician</i>	<i>p 157</i>
<i>Table 10.4</i>	<i>Family involvement in students' learning</i>	<i>p 160</i>
<i>Table 10.5</i>	<i>Student involvement in school musical activities</i>	<i>p 165</i>
<i>Table 10.6</i>	<i>Conservatoire/University students who have sat external musical examinations</i>	<i>p 167</i>
<i>Table 10.7</i>	<i>Conservatoire/University students who attended specialist Junior Music schools</i>	<i>p 169</i>
<i>Table 10.8</i>	<i>Conservatoire/University students who had private tuition</i>	<i>p 169</i>
<i>Table 11.1</i>	<i>Qualities of favourite musician(s)</i>	<i>p 187</i>

## List of Figures

<i>Figure x.1</i>	<i>Sources of data collection</i>	<i>p 4</i>
<i>Figure 3.1</i>	<i>Gagné's Differentiated Model of Giftedness and Talent (DMGT)</i>	<i>p 17</i>
<i>Figure 4.1</i>	<i>Three-Ring Conception of Giftedness</i>	<i>p 31</i>
<i>Figure 4.2</i>	<i>Renzulli's Enrichment Triad Model/Revolving Door Identification Model</i>	<i>p 34</i>
<i>Figure 4.3</i>	<i>Mönks' Multifactor Model of Giftedness</i>	<i>p 36</i>

## Acknowledgements

Throughout the duration of studying for my PhD I have been privileged to have met and worked alongside a number of truly inspirational people. While naming these people would be a long task, there are a few who would like to take the opportunity to say thank you to in particular. These individuals have shared my educational and life journey during the writing of this thesis and who have given me good grounding as I continue along academic and artistic paths.

A heart-felt thanks firstly goes to the participants (the musicians, teachers, students, pupils, project leaders/course co-ordinators) some of whom I have only met electronically but who kindly took the time from their busy schedules to share their experiences with me. Without your contributions, your devotion to music, education or the creative arts this research would not have been possible.

I would also like to thank the funders who supported me financially, especially at the earlier stages of the research: ESCalate, Newby Trust, Glasgow Educational Marshall Trust (GEMT) and the Carnegie Trust.

My thanks to Dr Amanda Benjamin, Professor Guy Claxton, Dr Dely Elliot, Honor Hania, Dr Nicki Hedge, Dr Stephen McKinney, Professor Franz Mönks and Professor Rena Subotnik for offering advice on a number of issues ranging for literature, research methodology and advice on data collection. A special thank you to Professors Joanne Haroutounian and Joseph Renzulli for kindly granting permission to include their musical ability tests and nomination forms in this thesis. To the University of Glasgow Graduate School for Education (2006-2010) especially Dr Beth Dickson, Professor Alison Phipps, Dr Niamh Stack, Mrs Fiona Green and Mrs Myrtle Porch for sparking my imagination and giving me the opportunity to share ideas and contribute to the wider University.

To Margaret Sutherland, Dr Niamh Stack (Scottish Network for Able Pupils (SNAP)) and Dr Roisín Coll (McKnight) for advising me and encouraging me along the way and to the academic and technical support staff in the School of Education including Mrs Fiona Mackinlay, Miss Joanne McFadden, Ms Hooi Ling Eng, Mr Neil Ferguson and Mr Richard Kerr.

A special thanks goes to the following group of people who have listened to me, advised me and made me laugh during difficult times, but, most importantly, who inspire me with their creativity and passion for what they do: Charlotte (Charlie) Blackledge, Dr Vicki Coalter, Mrs Pat Duffy, Dr Maureen Farrell, Dr George Head, Mrs Maggie Jago, Mr John Pitcathley, Ms Jan MacDonald, Dr Margaret McCulloch, Ms Dawn McKenzie, Mrs Theresa McKee, Professor Pete Stollery, Ms Liz Turner, Ms Moira Ritchie and Ms Alna Robb.

The final words of this acknowledgement go to my supervisors, Dr Alastair D McPhee and Dr Fiona Patrick. Throughout this PhD their sense of humour and friendship has been (and continues to be) much appreciated. Thank you for all of the advice, support and encouragement across my studies which at times went over and above the role of supervisors. For that I am forever grateful.

Angela

## Dedication

*Be gracious to all men, but choose the best to be your friends*

Isocrates

This thesis is dedicated to those mentioned on the previous page and also those who are not mentioned but who have in many ways supported and encouraged me along the way. I hope that this work goes some way to reflect my appreciation of you all. Thank you for sharing this journey with me.

## **Declaration**

I certify that this thesis is my original work and that all references to, and quotations from, the work of others contained therein have been clearly identified and fully attributed.

## List of Abbreviations

BERA	British Educational Research Association
C	Chance
CM	Classical Musician
CG	Creative (Gift)
C/US	Conservatoire/University Student
DMGT	Differentiated Model of Gift and Talent
EC	Environmental Catalyst
HEI	Higher Education Institution
IC	Intrapersonal Catalyst
IG	Intellectual (Gift)
IIM	Identities in Music
LA	Local Authority
LTP	Learning Training Practice
MB	Metric-based system
MG	sensoriMotor (Gift)
MII	Music in Identities
MI	Multiple Intelligences
NCE	National Centre of Excellence
P/JM	Pop/Jazz Musician
PLC	Project Leader/course co-ordinator
RDIM	Revolving Door Identification Model
SDL	Self-directed learning
SEED	Scottish Executive Education Department
SEM	Schoolwide Enrichment Model
SENCO	Special Educational Needs Co-ordinator
SERA	Scottish Educational Research Association
SG	Socioaffective (Gift)
SOED	Scottish Office Education Department
TDT	Talent Development Trio
T/I	Teacher/Instructor
TM	Traditional Musician

VLE	Virtual Learning Environment
ZPD	Zone of Proximal Development

## **Section 1**

### **Introduction and literature analysis**

# 1 Introduction

The original idea for my doctoral research arose when I attended a course on musical ability as part of my undergraduate BEd Music degree. This course was a short programme lasting 6 weeks which provided a brief insight into the education of musically gifted children. Although interesting, the course could only touch on issues relating to gifted and talented musicians and it did not provide any information about how to accommodate, or indeed recognise, gift and talent in the mainstream music classroom. Additional readings such as *Mapping Music Education Research* (BERA 2001) publications were useful for providing wider insight into influences on musical learning. This led me to take an interest in the topic for my Continuing Professional Development (CPD) as a teacher and I began reading research literature on pupil motivation, promoting effective learning within the music classroom, and high ability studies. The CPD reading highlighted that there was a breadth of information on gifted and talented children which focussed on school-based, academic abilities. However, one author considered that high ability was a special need and reading Schwartz's (1975) work led me to think more fully about the needs of talented pupils. Furthermore, I was influenced in my study by the introduction of the *Additional Support Needs Act (Scotland)* in 2004. This act sees gifted and talented children as having additional support needs which should be accommodated and developed in formal schooling.

Further to this, I began to explore the issue of how musical gift is conceptualised through the work of Michael Howe (1990; 2000). Howe's research attempts to address topical issues in ability studies, for example 'hot-housing' children through extra learning, as well as the idea that high intelligence is sometimes considered as being the same as high ability. From a musical perspective, Howe's (1990) work is interesting as he refers to the learning experiences of world-renowned figures who were considered to possess genius, for example Bach and Mozart. Howe (1990) discusses the development of these individuals, identifying key figures and experiences in their lives which could be seen as contributing to their musical talent.

The experiences from the BEd degree, my teaching experiences, and my CPD reading suggested that there were misconceptions about what constituted gift and talent and how talent might be developed. The initial area of interest for this thesis was to gain a deeper insight into how secondary schools recognised, identified, and developed the abilities of pupils deemed to possess musical gift and talent. The research literature suggested that while formalised testing in music<sup>1</sup> can be used to identify aspects of musical ability such as pitch discrimination and note length and loudness, few schools utilised these tests solely as means of identifying musical ability. Instead, the preferred option was to have ‘test’ lessons or trial periods in which the pupil was provided with the opportunity to learn the instrument with a review period a few weeks later. While teachers could suggest that pupils learn to play an instrument based on initial performance in class test results, it would appear that the preference was more for pupil self-selection in music learning (with pupils making their musical interest known to their teacher and beginning their lessons) (see Green 2008a).

My initial reading of research literature pointed out that, while studies have been conducted on contexts for musical learning and learner identities within the Scottish domain, little research has been undertaken in Scotland on highly able musicians in the past 30 years. Not since the Cameron Report of 1976 (*Gifted Young Musicians and Dancers: Report of a Working Group set up to consider their general and specialised education*) (1976) has anything music-specific been attempted regarding high ability studies. This is despite recent interest in providing a more inclusive learning environment for highly able learners in Scotland (see *Education (Additional Support for Learning) (Scotland) Act 2004*, (HMSO 2004).

### **Aims and research questions**

This is a multidisciplinary study encompassing elements of music, education and aspects of psychology. The research offers insight into how professional musicians and school pupils with musical ability construct their views of musical gift and talent. The intention of this thesis is to explore the nature of gift and talent in general, and musical talent

---

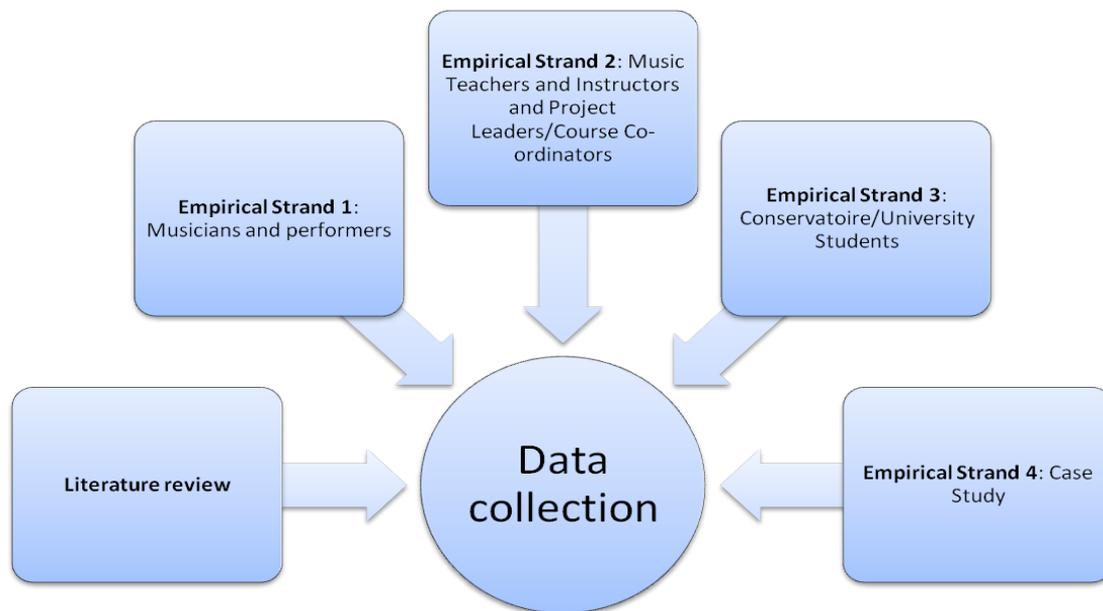
<sup>1</sup> For example with tests such as those developed by Seashore (1919) or Bentley (1976). These are the most common formal tests for measuring musical ability. Later tests such as Gordon’s Measures of Music Audiation (1982) derived from the ideas within these two methods of assessment.

specifically, as well as extending understanding of how identification of giftedness can take place. In doing this, the aim is to enhance awareness of the way(s) in which practitioners can develop and nurture talent in a practical context. The thesis will address these issues by answering the following research questions:

- 1a How is gift and talent conceptualised generally in literature?
- 1b How is gift and talent conceptualised by musicians, performers and teachers?
- 2 How is musical gift/talent identified?
- 3 How is musical ability nurtured?

All research questions were answered through gathering data from the following sources (see Figure x.1 below):

**Figure x.1: Sources of data collection**



## **Structure of the thesis**

After the initial search of literature had been undertaken, the decision was made to divide the study into two sections: one focusing on literature-based evidence and one discussing the empirical data. While a literature review could have been conducted and reported, I preferred to integrate the research literature into the empirical data strands as appropriate and to discuss key theories from literature in the first section. I took an iterative approach to literature searching, beginning with a general scope of high ability studies and analysing these for key themes. An iterative approach allows for reflection about, and returning to, themes within the literature, and permits re-analysis in order to address features which arise during the research process (Heaton 1998).

The process of critical literature analysis used in the first five chapters of the thesis helped to frame the questions used in the empirical data strands. The process contextualised the research in addition to broadening my knowledge of key issues within the field (Gall et al. 2007). Critical analysis of literature allows a move from personal interest in a topic to a more focussed and structured study (during which the researcher can reflect upon his/her own understanding and begin to realise how their research fits into research traditions). The term 'critical' in this instance does not necessarily imply a negative stance by the researcher towards an author's work; it means that the researcher is attempting to explore each author's thinking. Critical analysis therefore delves into three aspects of the research paradigm: the ontological perspective (questioning the nature of the reality constructed by the individual); the epistemological perspective (the validity of these constructions with regards to the context); and the methodological perspective (analysing potential approaches used to conduct research) (Grogan & Simmons 2007). The structure of a research paradigm, as pointed out by Grogan and Simmons (2007), emphasises that critical analysis does not take information as ultimate truth in any aspect of the structure. It is for this reason that Grogan and Simmons (2007) deem critical analysis to be a transformative process in the sense that any form of critical knowledge challenges current thinking in order to expand and develop wider understanding.

Wallace and Poulson (2003) stress that critical analysis is not a character assassination of the author, but a constructive and justified commentary of the literature which allows the

researcher to consider and justify his/her stance in relation to his/her own study. Critical analysis

provides a criterion for selecting some texts for inclusion and rejecting others, the rationale for reading selectively within a text, the basis for critical analysis of what has been read, and the focus for synthesising findings into a logically structured account putting forward a convincing argument. (Wallace & Poulson 2003:27)

However, Wallace and Poulson (2003) note that it is difficult to take a neutral stance when reading literature, and so qualitative research can have a value-laden character. Grogan and Simmons (2007) point out that educational researchers hold philosophical assumptions shaped by their own values: these assumptions shape how they identify and define their own research contexts. The authors term such research values paradigms which impinge upon a researcher's work (either implicitly or explicitly). Denzin (1994:501) states that each researcher or writer offers their interpretation of events as they try to "mak[e] sense out of what has been learned". However, what is 'sense' to one researcher may not hold the same sense to another.

The initial literature keyword search was framed around the terms 'gift', 'talent' and 'high ability' with an initial date parameter of 1996-2006. As the research progressed, further searches were carried out to provide more recent materials. The initial search of databases such as ERIC, Ingenta Connect, Google Scholar, and the University library's online material, was used to generate the texts on which chapters 1, 2 and 3 are based. These early literature searches were designed to provide understanding about how gift and talent are conceptualised. Each chapter provides an overview of what models of gift and talent exist in respect to specific authors under discussion, before offering a detailed critique of the authors' thinking. Within each chapter, key issues relating to terminology and to concepts of talent development are highlighted. Chapter 2 provides a critique of the terminology, presenting the main issues regarding conceptualisation in this research field. Chapters 3 and 4 discuss in particular the work of Gagné, Renzulli and Winstanley. Gagne, Renzulli and Winstanley's research provide general theories of gift and talent. Rather than inserting artificial links to music in these first few chapters, it was considered to be of more value to

discuss the general issues and theories of gift and talent first, linking these general issues to a musical context later in the thesis.

Chapter 5 acts as a summary of key issues relevant to the talent development process, and explores the grey areas identified in the previous chapters which require additional consideration beyond the models of the authors in chapters 2-4. Chapter 6 is the final literature chapter which develops Gagné's (2004) view of catalysts for talent development and relates this to music-specific research by considering the work of Stollery and McPhee (2002), McPhee et al. (2005), Koopman (2007), Davidson et al. (2000), Howe and Sloboda (1991a; 1991b) among others in order to discuss the role of contexts for music talent development and how contexts can influence an individual's development.

The methodological approaches undertaken for the empirical data strands in this thesis are discussed in chapter 7. This chapter explains the methods of data collection, the construction of the research schedules, and the wider issues regarding the ethical and methodological considerations of the study. The data collection was designed around four strands to explore research questions 1b, 2 and 3 (see Table x.1 below).

**Table x.1: Sources of data collection and research questions**

<b>Method of Data Collection</b>	<b>Empirical Strand</b>	<b>Research question</b>
Literature Analysis	N/A	1a
Musicians and performers	1	1b, 2
Music Teachers and Instructors and Project Leaders/ Course Co-ordinators	2	1b, 2
Conservatoire/University Students	3	1b, 2
Case Study	4	1b, 2, 3

Exploration of the empirical strands takes place in chapters 8-11. In chapter 8 the experiences of 62 internationally renowned professional musicians are discussed. The

participants comment on their early musical experiences, their musical development and how they identify and recognise musical gift and talent in both themselves and in other musicians. This forms the discussion of Empirical Strand 1.

Chapter 9 explores Empirical Strand 2 and provides the views of members of teaching and instructing staff at secondary schools as well as at a conservatoire in Scotland. This chapter provides insight into the teaching experiences that teachers and instructors have had with gifted and talented children at various stages (from early years to adolescence). This is supplemented with additional data from project leaders and course co-ordinators - a small group of participants who have been involved in a number of different local and national projects with young gifted and talented learners.

Chapter 10 discusses Empirical Strand 3. This chapter provides insight into the learning experiences of students studying at Undergraduate and Postgraduate level in a conservatoire and a university in Scotland. The participants were asked similar questions to those posed to the successful musicians in chapter 8 with additional emphasis placed on their experiences of learning and training. The participating students discussed their experiences from early childhood, school and their current learning at their institution.

Chapter 11 is a case study of pupils in a National Centre of Excellence (NCE) and represents Empirical Strand 4 of the data collection. Although this chapter covers research questions 1b and 2, the case study was structured specifically to address research question 3. This chapter provides insight into how the pupils in the NCE conceptualised their ability, the identification process (of themselves and others), and their development experiences.

Chapter 12 summarises the main issues of the thesis and details its significant, original contribution to gifted and talented research. In addition, this chapter suggests areas for future research.

## 2 Considering the terms

An important aspect of the critical analysis of literature is the deconstruction or unravelling of concepts, allowing the reader to query the constructions and positions taken. In relation to this thesis, there are several concepts which require critiquing (Grogan & Simmons 2007). ‘High ability studies’ is the umbrella term for research regarding learners and individuals who are capable of high achievement in a number of areas. While many concepts are used to describe the attributes and contributions of highly able learners, two terms are prevalent: ‘gift’ and ‘talent’. However, additional terms such as ‘ability’ and ‘capacity’ are found in the research literature. There is debate as to the meaning of the terms gift and talent; equally, there is no single definition of ability (Howe 1998). Howe (1998) notes that ability can be conceptualised in a number of different ways: for example, cognitive ability or artistic ability, suggesting that the term is more a description of being able to take part in a particular activity than being an indication of any particular level of skill.

The term ‘ability’ is a generalised one and the construct behind it can be said to relate to an individual’s self-concept. Dweck (2000) believes there to be two views of ability: incremental (where ability is seen as a set of skills that can be adapted and developed) and entity (where ability is regarded as a fixed capacity). The notion of entity and incremental ability connects to Dweck’s research on mindsets (see chapter 6 of this thesis). She notes that the stance a learner takes in relation to any given task, and in terms of how they perceive their own ability, is important. Dweck’s incremental theory (2000; 2006) considers ability as *potential*, as a capacity to engage with learning. This is similar to the view of Claxton (2007) who believes that children can be encouraged to develop their capacity to learn through an assortment of different approaches to tasks. This in turn may influence how they view their own abilities. Claxton does not discuss ability as such or attempt to define it; instead, he stresses that there is merit in encouraging children to adopt a positive learning disposition, one which moves the individual away from seeing success as related to examinations and assessments towards developing a passion and intrinsic interest in learning (Claxton 2007).

High ability is often thought of in terms of giftedness or talent. These concepts first arose in the United States in the 1920s, reflecting the interests of society and education at that particular time (Borland, 2005). During this period, scientific methods of quantifying intelligence became popular through the work of Binet (see Winstanley 2004) and Terman (see Jonathan 1988). Tests of cognitive and intellectual skill were commonly used to differentiate the gifted learner from the 'average' in the early to mid 20<sup>th</sup> century (Winner 1997). Borland (2005:4) comments that societal acceptance of these tests led to their widespread use in schools to "classify, group, and, as some have argued, control children". Furthermore, a conceptual hierarchy of abilities arose as a result of using these tests, based on the suggestion that giftedness is related more with academic merit and intelligence rather than with expressive or vocational pursuits (Callahan 1997).

In terms of musical ability, testing methods such as those developed by Seashore (1938) and Bentley (1966) became prominent in the classroom context. A review of musical ability and musical aptitude tests undertaken by Shuter-Dyson and Gabriel (1981), and later by Haroutounian (2000), suggest commonalities and differences between these tests. The Seashore and Bentley tests (and those like them) are based on psychometric and cognitive approaches to understanding musical ability (MacDonald et al. 2009). These tests attempt to identify components of musical ability such as having a 'good ear' and pitch retention, and look for an identification of individual aspects of musicianship through testing and measurement rather than reflecting on musicianship more holistically (MacDonald et al. 2009). Haroutounian (2002) underlines the argument that such testing methods lack musical value because they ignore wider aspects of musicianship.

Green (2008b) emphasises that such methods of testing assume a statistical link between general IQ testing and musical ability, and are biased towards classical art forms. This, she considers, is a highly limiting view of musical ability which sees high ability as belonging to a few. This is problematic because

a watertight musical ability test has never yet been invented; and how could one be? When so many variables, including the individual's experiences of musical enculturation, their delight in experimentation (which may go on for a long time before it sounds like music to anyone else), their personal identity and taste, the encouragement of their family and friends, the availability of instruments and of like-minded peers, the idolization of stars, a lust for fame perhaps, or just a desire to make music only *if* or only *because* it is fun, can all affect the ways in which latent musicality becomes manifest. (Green 2010:210).

Contemporary research points out that an understanding of musical ability cannot depend on the results of a test; however, measurement and testing approaches are still utilised on a regular basis (Haroutounian 2002). Green's opinion is formed through experience of working with children in a school context where she has seen the effects of selection and division through testing at first hand. She acknowledges that some elements of musical learning tend to rely on selection procedures (such as instrumental teaching), but argues that assessment of musical contribution or indeed musical ability is a highly difficult process (Green, 2010).

Research literature regarding definitions of 'gift' and 'talent' is often vague, sometimes utilising both terms interchangeably "as if they had precisely the same meaning" (Callahan 1997:21). Indeed, Sternberg and Davidson point out that "giftedness is something we invent, not something we discover: it is what one society or another wants it to be and hence its conceptualisation can change over time and place" (Sternberg and Davidson, 1986:3). Borland (1997) notes that these terms are socially constructed, shaped out of the beliefs, values and skills of the culture in which the individual is placed. The terms gift and talent therefore "acquire their properties and their influence through the give and take of social interaction" (Borland, 1997:7). Porter (1999) is of the opinion that society creates its view based on what it considers to be desirable skills. This would suggest that an attribute which one culture considers as a 'gift' may not be thought of as such in another society.

While new definitions of gift and talent have appeared over the course of the 20<sup>th</sup> century, many of these still have a strong relationship to the concept of measured intelligence (Feldhusen 2005). As a result, the relationship between intelligence and giftedness continues to be a contested area for researchers, with some arguing that specific groups and

individuals have become marginalised (such as those with autism or dyslexia) where they do not adhere to normative conceptions of intelligence as suggested by IQ tests (Borland 1997). The concept of intelligence has become more complex and contested. In much the same way as ‘gift’ and ‘talent’ are now seen as social constructs, Howe (2000:1) argues that society has become fixed on “folk psychology” regarding intelligence, leading to a widespread belief that intelligence is a measurable feature of the individual which is innate, and which determines the amount of success or ability an individual will have in relation to cognitive-based tasks.

While some researchers, including Howe (2000) and Dweck (2000), acknowledge difficulty in measuring intelligence, measurement remains popular. The growth of research knowledge about intelligence has developed academic understanding of the concept, with cognitive ability tests tending to form one component of understanding an individual’s capacity or ability (rather than being the sole method). Sternberg and Williams (2002) acknowledge that more contemporary models such as the Triarchic Theory of Human Intelligence and the theory of Multiple Intelligences (MIs) tend to have a broader perspective than ‘traditional’ approaches to measuring intelligence: the Triarchic and MI theories view intelligence as relating to more than cognition (Sternberg and Williams 2002). Sternberg and Williams (2002:126) stress that there is debate about these contemporary theories being too inclusive and “trying to capture too much in the concept of intelligence”. The work of Gardner on Multiple Intelligences (MIs) in the 1980s began to evolve a more inclusive view of the links between intelligence and ability, moving the focus from a unified view of intelligence to a focus on the ways in which various intelligences are used (Gardner 1983b). By shifting the locus of interest from quantifying an individual’s intelligence to appreciating and including his/her range of abilities, Gardner’s theory creates a more accommodating view of intelligence than do earlier theories which assert that intelligence is fixed and inherited.

Although the intelligence-ability relationship still underpins many conceptualisations of gift and talent, research has been undertaken on the role of contextual factors in the development process (see Gagné’s *Trio of Catalysts* in chapter 3). In addition to this, consideration has been made in research of the definitions of talent applied to high-performing individuals, deliberating the connotations which these labels may have for the

learner, their peers, family and the wider community (Freeman 2005). Montgomery (2010) believes that influential factors can affect a learner's engagement in a task, for example coming from a disadvantaged background, from an ethnic minority group or having a special educational need (SEN). These factors may cause the individual to have his/her ability "hidden or 'masked'" (Montgomery 2010:68) and so they may underachieve in one or more areas of learning.

While no single concept or definition of gift or talent may meet with complete consensus, all definitions contribute to a more comprehensive view of high ability (Porter 1999). Indeed, a single uniform definition or term could be detrimental to learners in that it might limit identification of talent and lead to the overlooking of abilities in some individuals or groups (in much in the same way as IQ tests did in the 1920s). The range of definitions of ability available provides the academic community and wider society with more knowledge and understanding of high ability and of the gifted learner as a whole person, rather than only viewing ability as a cognitive facility. From an educational perspective, there is merit in discussing and researching the needs of highly able learners as the knowledge produced can help to enlighten teachers about how best to identify and develop the abilities of children who show considerable potential in any curricular area. However, in order to cater for an individual pupil's needs some definition is important as it provides a framework for identification and talent development. A balance is required in framing terms of reference: too broad a term and everyone becomes gifted, too restrictive a term and it potentially creates an elitist model and therefore may marginalise specific groups (Porter 1999).

For the purposes of this thesis, the terms 'gift' and 'talent' will be used, as they are the terms most frequently applied across the research literature in the field. While these terms are used throughout the thesis it cannot be denied that these are contested terms there has been a recent move towards the use of 'highly able' (Scottish Government 2009). This newer term presents an inclusive view of ability across a range of activities and experiences rather divisions and is used to refer to learners "who are currently working or could be working ahead of their age peers" across a number of areas (Scottish Government 2009:2). In addition, the work of Gardner and Sternberg prompts researchers to think more deeply about how gift and talent are conceptualised. Initial analysis of research literature

for this thesis indicated that three themes were relevant to a study of gift and talent: giftedness as a cognitive-based attribute; ability as developmental; and philosophical approaches to learning through meeting individual learner needs. In order to discuss these themes in greater detail, this thesis focuses on three researchers in particular: Francoys Gagné, Joseph Renzulli and Carrie Winstanley. These authors will be discussed in detail in terms of their own understandings about ability, their process for identification and their models for talent development. While other theories could have been considered, such as musical intelligence through analysis of Gardner's MIs (1983b), or creativity studies (see Csikszentmihalyi (1996), for the purposes of this thesis it was deemed that the three prevalent themes noted above created a framework and structure for discussion of the development of talent (and musical talent) appropriate to the research aims.

The first stage in exploring these terms is through the work of Gagné. Gagné's Differentiated Model of Gift and Talent (DMGT) (Gagné 2000; 2004) aligns with cognitive views of ability, believing ability as an innate property (albeit one which is subject to influence from an assortment of factors which he terms the 'Trio of Catalysts') (Gagné 2004). Renzulli's (1977; 1984; 1986) enrichment models are based on contemporary views of cognition and ability, borrowing particularly from the research of Robert Sternberg. Central to each of Renzulli's models is the notion that, through access to opportunity, a child can develop gifted behaviours and build upon their interests (Renzulli 1977). Winstanley's views align more with current inclusion policy in the United Kingdom through the belief that development and quality of learning experiences for every child matters. Her position is the most inclusive of all three authors, deeming how best to meet the learning needs of all children, regardless of level of ability (Winstanley 2004; 2006).

### **3 Definition, identification and development: exploring Gagné's concept of innate ability**

The development of talent in any field or activity is a long and arduous process (MacNamara et al. 2006). Studies prior to the 1980s tended to consider ability and talent development as being linked to cognitive skills (see Howe 1998), emphasising 'gift' or 'talent' as arising from innate ability inherent within a select few (Borland 2005). These conceptualisations often rested on the idea of testing as a way to measure ability. However, while tests may identify or measure current levels of ability, they cannot measure potential for talent development in an area. Nor does high performance on a test necessarily indicate that a child will be motivated to learn (Shaughnessy and Fickling 1993). This more traditional approach - viewing ability as a largely cognitive and measurable attribute - created a narrow, static concept of talent which was often linked to demonstration of academic feats and endeavours (Callahan 1997). However, contemporary research in high ability studies suggests that the development of talent is a dynamic process. Innate ability is a contributing factor and is no longer considered as the sole cause of elite performance (MacNamara et al. 2008).

The broadening of focus in the research literature since the 1980s has allowed for additional aspects of talent development to be studied: for example, the effects of labelling, social and self perceptions of high ability (Freeman 2005), self-concept (Dweck 2000), and the range of factors which may influence an individual's development or which can prevent his/her abilities from being realised (Porter 1999; Dweck 2000; Freeman 2005; Winstanley 2006; Montgomery 2010). This widening of the research base has led to a broader conceptualisation of high ability, one that does not overlook innate aspects of ability. However, it does recognise that some individuals who possess innate ability sometimes do not reach their full potential (MacNamara et al. 2008). As a result, research has begun to offer insight into how to better an individual's effort and maximise potential, looking at behavioural characteristics required in order to cope with the learning environment. The individual needs to understand how to execute particular strategies in order to maximise their development and mindset for learning (Dweck 2006). In the light of this new research which broadens concepts of ability, it is still important to look at

Gagné as his model differentiates between the terms ‘gift’ and ‘talent’ viewing them as two clear distinct entities. Therefore Gagné’s theory will first be described and then critiqued.

### **Gagné’s construct of gift and talent**

Gagné has been active in the field of gifted and talented research for almost forty years. His contributions to this field of research have gained him worldwide acclaim. Gagné’s view is grounded in creating a hierarchy of abilities through metric based, quantitative approaches that attempt to identify, categorise and measure the ability of highly performing individuals. For him the definitions of ‘gift’ and ‘talent’ centre on ability as intrinsic intellectual properties (Gagné 2000b). Gagné uses both terms to describe different stages of human ability:

*Giftedness* designates the possession and use of untrained and spontaneously expressed natural abilities (called outstanding aptitudes or gifts), in at least one ability domain, to a degree that places an individual at least among the top 10 per cent of age peers...*Talent* designates the outstanding mastery of systematically developed abilities (or skills) and knowledge in at least one field of human activity to a degree that places an individual at least among the top 10 per cent of age peers who are or have been active in that field or fields. (Gagné 2004:120, original emphasis)

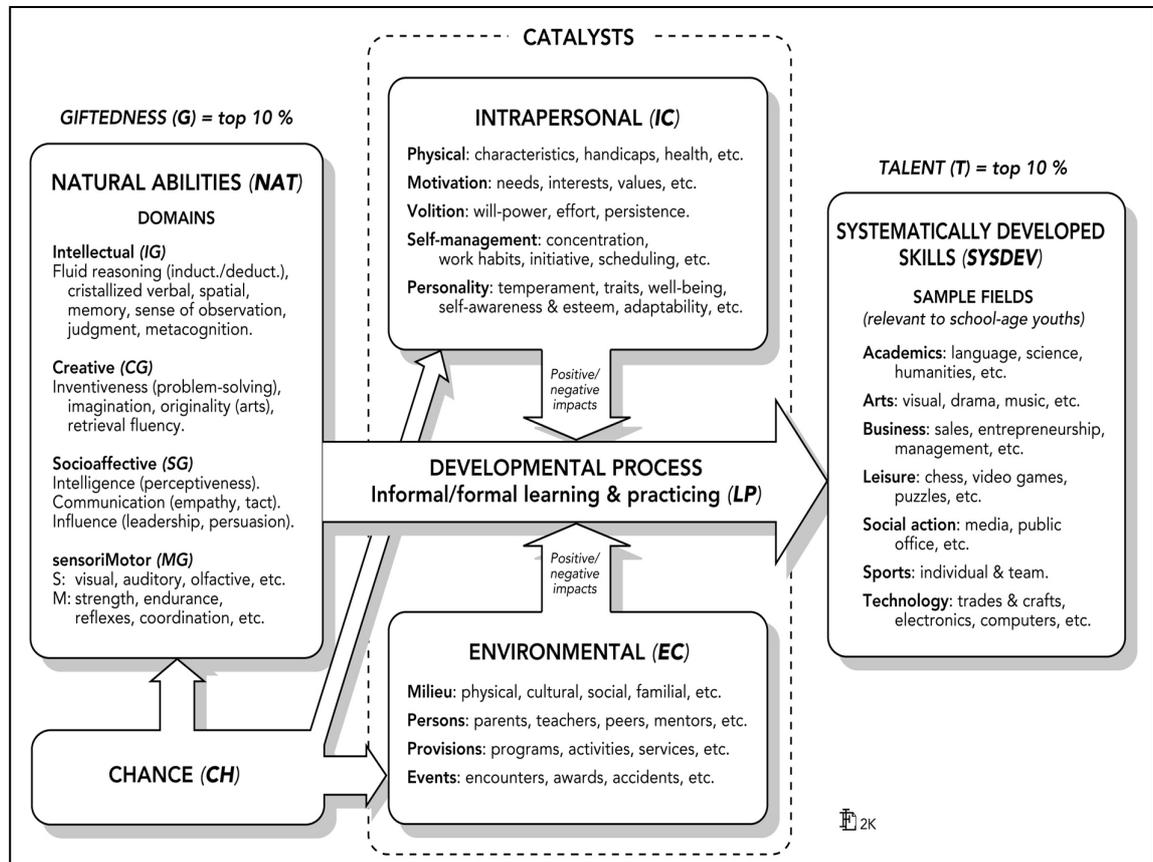
Gagné (2008) notes that there is a common theme in literature and research concerning ‘giftedness’: that it is characterised as an outstanding ability, apparent at an early age and developed throughout an individual’s lifespan.

Although for Gagné both terms (gift and talent) share common ground (being unique to human abilities, normatively identified and with reference to above average individuals), he argues that there is a distinct difference between raw, natural gift and systematically developed talent. His conceptual model, the Differentiated Model of Giftedness and Talent (DMGT) (Gagné 1995a), distinguishes gift from talent in addition to incorporating the translation of natural gifts into expertise and mastery of skills through Learning Teaching Practice (LTP). Gagné (2004) argues that a person cannot be talented without first being

gifted, and sees giftedness as the foundation of talent. Talent emerges as a result of honing, refining and mastering raw gift(s) into a ‘field’ – a diverse occupational activity that requires skills and competence. Gagné believes that using the two terms (gift and talent) supports the idea of a *progressive development* of raw gift into refined talent (Gagné 2008): In addition, it is through a structured LTP programme that the skills required for adulthood and future occupations will be developed (Gagné 2004).

Gagné has revised the DMGT on several occasions however the main elements remain broadly the same. There are minor differences between the models, however Gagné believes that each additional revision provides further clarification of his thoughts. The basis of the discussion will refer to Gagné’s 1995 and 2004 versions of the DMGT with reference to other editions where appropriate. The DMGT in Figure 3.1 (below) is based on the 2004 revision.

**Figure 3.1: Gagné’s Differentiated Model of Giftedness and Talent (DMGT, 2004)**



This figure illustrates the development of gift into refined talent as a complex interaction of six components which are further subdivided into two groups: the Talent Development Trio (TDT) (gift, talent and process) and the Trio of Catalysts (intrapersonal, environmental and chance). For Gagné (2004) giftedness lies predominantly within four domains (cognitive; creative; socioaffective; sensorimotor) all of which represent individual skill components (for example, the ability to reason, reflexes) and can combine and contribute to a wide number of occupations. Guenther (2004) is supportive of categorising gift into these four domains as it demonstrates an attempt to ‘open’ the mind to accept additional attributes unrelated to intellectual qualities. Borland (1999) however disagrees, finding no reason (either psychologically or educationally) for limiting the classification to such terms due to the sheer multitude of ability possibilities. In the 2008 revision of the model, the number of domains was increased from four to six with the inclusion of two physical attributes (muscular physical movements and reflexes) in addition to the previous four mental domains (cognitive; creative; socioaffective; sensorimotor).

The identification of cognitive or intellectual gift is one of the central themes of the TDT, with Gagné noting that such abilities are used in a range of different tasks:

The DMGT proposes four aptitude domains...: Intellectual (IG), Creative (CG), Socioaffective (SG), and Sensorimotor (MG). These natural abilities, whose development and level of expression is partially controlled by the individual’s genetic endowment, can be observed in every task with which children are confronted in the course of their schooling. Think, for instance, of the intellectual abilities needed to learn to read, speak a foreign language, or understand new mathematical concepts; the creative abilities needed to solve different kinds of problems and produce original work in science, literature, and art; the physical abilities involved in sport, music, or woodworking; or the social abilities that children use daily in interactions with classmates, teachers, and parents. Everyone possesses ‘some’ level of ability in each of the four domains; in other words, the giftedness domains should be called technically natural ability domains. (Gagné 2007:94)

Similarly, Gagné takes this idea further, noting that natural intellectual or cognitive ability

can express itself in many different ways depending on the field of activity. Manual dexterity can be modelled into the particular skills of a pianist, a painter or a video-game player...Yet, some occupational fields are associated more directly with specific ability domains. (Gagné 2004:124)

The quotations imply a move from a more cognitive perception of gift related to academic ability to thinking cognitive and intellectual gift being components of an array of different academic and non-academic pursuits.

### *Measurement and the 10-per-cent threshold*

Throughout the process of translating gift to talent, Gagné (2004) remains adamant about measuring the beginning gift, and the finalised talent, with testing only being used to provide supporting evidence of giftedness. He believes that testing can be used to gather information which will emphasise the learning needs of the gifted child. Gagné notes the importance of societal constructs and normative identification of ability: “[t]he degree of commonness (or rarity) of normative concepts is a crucial element of their definition” (Gagné 2000b:10). Therefore, instead of viewing or measuring individuals against externally set criteria which they may strive to attain, he stresses the importance of normative measures. Gagné (2004:122) believes that natural abilities are “witnessed” and are observable “through the various tasks that confront children in the course of their development”. There are two means of witnessing giftedness and natural ability in children – biological maturation and (unstructured) learning (Gagné 1999). Gagné does not rule out tests altogether: instead, he recommends that tests are used after the initial recognition and witnessing of the natural ability. Gagné (2004) argues that measurement of talent takes the form of an assessment of an outstanding performance, for example via music competitions, exams and other summative opportunities. Gagné attempts to address this through a metric based (MB) system (see Table 3.1 below). After identifying the top 10% of gifted/talented individuals, the group is subdivided further to represent the quality and rarity of the ability possessed (Gagné 2000b).

**Table 3.1: Proposed Metric-based (MB) System of Levels within the Gifted or Talented Populations (Gagné 2000b:12)**

<b>Label</b>	<b>Percentage (SD = 15)</b>	<b>Ratio</b>	<b>IQ Equivalent</b>
<b>Mildly</b>	10%	1:10	120
<b>Moderately</b>	1%	1:100	135
<b>Highly</b>	0.1%	1:1,000	145
<b>Exceptionally</b>	0.01%	1:10,000	155
<b>Extremely</b>	0.001%	1:100,000	165

Gagné (2004:124) believes that those who work within the top 10% of a field can be described as possessing “outstanding skills mastery” or talent. The period of time after successful translation from gift to talent is termed by Gagné as a ‘levelling out’ period. In his opinion, this period would require ‘word of mouth’ information about ability (for example, in the case of plumbers or carpenters) or a comparison of individual abilities (rather than a test or examination).

Moon (2003) supports this 10% threshold, believing that the gifted and talented perform in the top 5-10% of a population. However, unlike Gagné, Moon does not mention the need to measure or assess this group. The concept of a 10% threshold seems too prescriptive, and rests on too mechanistic a view of intelligence and ability. Baer and Kaufman (2004) and Porath (2004) question the need for a 10% cut-off linked to testing believing that Gagné’s insistence on such a figure does not account for potentially gifted and talented individuals. Instead the notion of a definable 10% creates a division between the ‘haves’ and ‘have nots’.

### *Transforming gift into talent*

Arguably, within Gagné’s (2004) model, giftedness cannot evolve into talent without there being some form of active, repetitive practice. For Gagné (2004), this period of

transforming gifts into talents consists of four elements, presented here in order of importance to development:

- 1 *Maturation* – genetic or biological;
- 2 *Informal learning* – knowledge gained through structured and unstructured learning before school education, for example social learning and experiences or daily routine;
- 3 *Formal non-institutional learning* – self-taught, self-motivated and self directed learning usually connected to leisure and hobby activities;
- 4 *Formal institutional learning* – school or other means of institutional education.

Gagné (2004) believes that both formal non-institutional and formal institutional are structured examples of learning involving a systematic process and a conscious attempt by the individual to attain goals. This is one of the core beliefs of the development process – the need to objectify and attain a goal. This is linked to personalising the learning experience or self-selecting the experiences to suit personal goals and ambitions. This view has links to Dweck's (2006) research on mindsets and Bandura's (1994) concept of self-efficacy. Feldman (1999) agrees with Gagné's view of systematic practice. In particular, Feldman (1999) believes that systematic training is a means of compensation for lower natural ability, deeming that repetitive training and practice for long periods will, in time, allow the individual to develop ability. On the other hand, Simonton (2004) refutes the 'practice makes perfect' ideal, noting that over-practice can have a detrimental effect on successful transformation if the individual develops perfectionist tendencies or neurosis regarding the task. Gagné suggests that there must be some degree of repetitive learning programme in place to allow the individual the opportunity to discover and extend knowledge of their ability and how to achieve their goals. Simonton (2004) does agree that without this Learning and Teaching Practice (LTP), an individual cannot develop the knowledge of their own abilities that is required to become 'expert' in a field.

The form of training, intensity and time dedicated to LTP will shape the overall talent. Talent or mastery cannot

appear or develop spontaneously like the natural abilities...they are the result of hundreds, sometimes even thousands, of hours of learning, training, and practice. While natural abilities are defined in reference to characteristics of the person (intelligence, creativity, sociability, motricity [power], etc.), systematically developed abilities or skills are labelled according to the field of human activity that governs the set of appropriate abilities to master; one speaks of systematically developed abilities in mathematics, visual arts, electrical engineering, commerce, hockey, and so forth. (Gagné 1995a:np)

The process of developing gifts into talents is a slow and lengthy process and therefore it is open to influence from both internal and external causal factors or, as Gagné terms, by a “trio of catalysts” (Gagné 2004:126): Intrapersonal (IC), Environmental (EC) and Chance (C). These catalysts can influence the development process (positively, negatively or both) and are significant in shaping the developed talent. The Intrapersonal Catalyst (IC) refers to the individual’s intrinsic attributes: the psychological and physiological predisposition. While each of the three catalysts can be seen to have some degree of influence on the individual’s intrinsic make-up, the IC has the closest biological link to the maturation of the individual.

The Environmental Catalyst (EC) is Gagné’s attempt to understand and acknowledge the contextual influences on the perceptions and dispositions of the individual and how these impact on their intrinsic motivation for tasks. Although Gagné (2004) states that giftedness is innate he acknowledges the role of the context of talent development, noting that the individual’s surrounding environment can influence their degree of self-commitment, motivation and expectations. The final catalyst, Chance (C), underpins numerous sections of the DMGT, contributing not only to the other catalysts (IC and EC) but also directly influencing ability. In his 2008 revision, Gagné removed Chance as an individual catalyst, instead illustrating it as encompassing the natural abilities, the Environmental and Intrapersonal catalysts and the development process. This would help to clarify the issue from the earlier variations of the model where it was unclear if the effect of C on one element of the model would have a ‘ripple’ effect on the other sections of the DMGT, or if Chance has direct influence on the Learning Teaching Practice itself.

For Gagné, the catalysts interact, with talent emerging as a result of “complex and unique choreographies between the five groups of causal influences” (Gagné 2004:134). All three catalysts could be regarded as spheres of influence on the overall development and form of the ‘finalised’ talent. Borland (1999) is doubtful of this interaction, however, feeling that catalytic intertwinement in itself is open to the element of chance which “sometimes leads to the full expression of immense potential” (Borland 1999:140). The use of the word ‘sometimes’ underlines the unstable nature of the catalyst. However, it could be argued that the inclusion of the catalysts in itself is suggestive that learning is an unstable process and subject to influence which can have both positive and negative effects on the transformation process (Gagné 2004). While it would be a limitless task to list, measure or predict all possible influences which the catalysts may have on the individual, the aim should be the provision of a productive and quality learning experience, one which can spark the individual’s intrinsic interests.

### **Critique of Gagné’s model**

While Gagné’s views are acknowledged in the gifted and talented field as being important, two issues have arisen which merit additional discussion. Firstly, the most significant criticism of the DMGT centres around the catalysts, in particular the degree of agency and self-management exerted by the individual in relation to how the trio of catalysts influence the learner. Secondly, as noted earlier in the chapter, Gagné’s DMGT shows a preference for recognising raw gift in the young child, noting that

high aptitudes or gifts can be observed more easily and directly in young children because environmental influences and systematic learning have exerted their moderating influence in a limited way. However, gifts still manifest themselves in older children, even in adults, through the facility and speed with which some individuals acquire new skills in any given field of human activity. (Gagné 2004:123)

Gagné argues that his DMGT does not out rule the discovery of raw gift(s) in older children and adults but that such attributes are simply easier to recognise in young children.

The quotation above is indicative of two factors: firstly that the DMGT does not sufficiently take into consideration the notion of lifelong learning, late developers or career changes; secondly, the question of whether excellence or mastery can be finalised or fully developed. These points have been raised in various ways by Simonton (2004), Feldman (1999), and Borland (1999). These authors consider Gagné to have placed too much emphasis on recognising giftedness in the young child, consequently overlooking the length of the development trajectory as well as the likelihood of adult giftedness arising. Similarly, Gagné's work suggests that the gifted individual will successfully be 'found' in the early years of their life and will successfully translate their gift into a developed talent. However, his research does not consider in any detail pauses in development or non-translation of gift into talent: Gagné's work predominantly focuses on the successful attainment of the developed talent. Feldman (1999) argues that a finalised product is non-existent and that learning and training simply makes the natural aptitude stronger, but never final. He notes that it is of greater research interest to analyse how an individual's development is influenced by the catalysts rather than measuring the talent, believing that the DMGT largely discounts the role of agency in the individual's development process. Feldman's view is shared by other researchers such as Feldhusen (2004), Simonton (2004), Guenther (2004), Porath (2004) and Ostatnikova (2004). These researchers argue that more consideration of the catalysts is required in order to demonstrate that the individual is active in the development process rather than having no control or self-management.

In relation to the intrapersonal catalyst, Feldhusen (2004) believes that Gagné has overlooked the contributions of eminent researchers in relation to personal agency and self-efficacy, particularly Bandura and Schunk. Feldhusen (2004) is of the opinion that the DGMT lacks depth and understanding of the influences of agency, even though it does give a place to volition and motivation. Feldhusen (2004) argues that this is as a result of the model being based on the psychological work of Robert Sternberg and not on wider literature. Therefore, the model lacks depth and understanding of the influences of human agency. This view is also shared by Guenther (2004) and Porath (2004). Guenther (2004) notes that the DMGT does not necessarily credit or recognise the individual's management of self in response to their situation(s). Similarly, Porath (2004) believes that while analysing the catalysts is important, understanding the role of agency and the individual's determination is a vital component. For Porath (2004), individual determination is a key feature of high ability and is what is noted in literature as a distinctive feature of the gifted

and talented. This aligns with the view of Renzulli's enrichment models (1977) and three-ring conception of gift and talent (1986) whereby motivational drive, determination and task commitment are acknowledged as important.

The need for further analysis of the catalysts is shared by Simonton (2004). Simonton (2004) states that the catalysts are crucial in shaping the developed talent and therefore merit further analysis. As with Feldhusen (2004), Simonton (2004) feels that the model is more about innate, inherited attributes of the individual rather than considering the attributes of the learner as being dynamic and responsive to experiences and encounters during his/her life (Simonton 2004). Gagné's model suggests that recognition and development of talent occurs largely in the early years, however Simonton's view of dynamic and fluid development supports the notion of late bloomers uncovering 'hidden' abilities through experiences later in their lives. This is supported by Porath (2004) who believes that the DMGT over-emphasises the role of formal, school and institution-based learning.

Whereas the discussion above stresses the need for analysis of the intrapersonal attributes of the individual such as motivation and determination, the need for analysing the biological and physiological aspects has also been noted. While all learners have their own unique biography and biological makeup, Feldman (1999) suggests that Gagné places too much emphasis on natural, raw gift, noting that the DMGT needs to be receptive to the fact that learning is an unstable process influenced by a combination of biological and experiential factors. While environmental and contextual factors are required, physiological aspects such as hormones, nutrition, and neurology all influence development as well as influencing the individual's approach to the experience. This view is shared by Ostatnikova (2004) who believes that these biological and physiological factors require careful monitoring throughout the development process.

## **Conclusion**

Gagné's DMGT provides a valuable contribution to the research field. The DMGT is a sophisticated and complex model which has three advantages: firstly, it clearly

differentiates between gift and talent, citing the stages and influences which may affect the transformational process. Secondly, the DMGT incorporates the relevant arguments of the field (for instance, the nature-nurture debate), attempting to address them and subsequently relate them to the model. Thirdly, the DMGT accentuates the important role of catalysts in the translation of raw gift into developed talent. Thus the model provides an insight into how extrinsic factors influence intrinsic abilities. While some researchers such as Feldman (1999) argue that the DMGT does not represent the true nature of development as an unstable process, it could be argued that by incorporating the catalysts into the model, Gagné has noted the unstable form of the development process (albeit to a small degree). In addition, the model does reflect the idea that development is open to outside influences.

François Gagné's DMGT presents an innate view of gift and talent which assumes that an individual's ability will be recognised in early childhood and developed through LTP. However, this approach overlooks the possibility that access to opportunities for learning may not arise in the learner's early years, nor does it account for how an individual may respond to such opportunities. Because of his belief in the genetic basis of talent, Gagné's approach to the identification of gifted individuals could be deemed elitist. Although he considers that his model takes account of the maturation process, the DMGT suggests that high ability is an innate, natural property. For some researchers (Barab & Plucker 2002; Howe 1990) the aim of identification is to challenge this innate notion and broaden the definition to incorporate additional means for individuals to demonstrate and develop their ability. Two researchers who firmly believe in this more holistic method of development are Joseph Renzulli and Carrie Winstanley who will both be considered in the next chapter.

## **4 Holistic approaches to talent development: the work of Renzulli and Winstanley**

François Gagné's view of gift and talent as outlined in the Differentiated Model of Gift and Talent (DMGT) has been criticised for its emphasis on innate ability, for example by Dai and Renzulli (2008) who favour a more holistic stance in relation to gift and talent. To Dai and Renzulli (2008), ability is dynamic and fluid, something which evolves and changes over the lifespan through interaction with experiences, opportunities and people. This holistic approach supports the role of agency and aligns with the views of Bandura (1977; 1994), Cairns (1996), Hase (2000) and Dweck (2006). This more holistic approach focuses on the individual's role in his/her own learning (in response to various contexts for learning). Another researcher who also supports the holistic view of gift and talent development is Carrie Winstanley. Winstanley believes that *all* learners have needs to be met: providing an appropriate level of challenge, supported by resources and experiences, is an entitlement for all. This chapter will explore the views of both Renzulli and Winstanley, comparing these researchers' ideas to those of Gagné as discussed in chapter 3.

### **Joseph Renzulli and the Enrichment models**

Joseph Renzulli has worked extensively over a period of 50 years as both practitioner and researcher in gifted education. His work explores the identification of, and educational provision available for, gifted students. His work acknowledges the expansive research within this area, for example the work of Terman and Galton, and offers his own contribution to the field, although Renzulli admits that his own theory is essentially a review of literature (Renzulli 1986). Renzulli's interpretation of talent development counteracts beliefs of giftedness as genetically based by outlining four concepts: the Three-Ring Conception of Giftedness; the Enrichment Triads; Revolving Door Identification Method (RDIM) and the Schoolwide Enrichment Model (SEM). These four concepts dovetail with one another and aim to widen participation in the talent development process by providing a more enriching learning experience for the gifted (and potentially gifted). His views provide a means for identifying talented individuals in addition to promoting more pupil-centred, relevant, learning experiences for pupils.

### *The basis of Renzulli's definition*

The way in which we identify giftedness in children is related to how we conceptualise ability (Sternberg & Williams 2002). Renzulli (1986) argues that intelligence and giftedness are not necessarily interrelated, believing that earlier approaches to identification through cognitive testing have led to a misconception that the two are linked. An important element of his theory is the idea that giftedness is a behavioural trait which individuals are capable of developing, rather than being something with which they are genetically endowed (Esquivel 1995; Renzulli 1984). Some research (Esquivel 1995; Gottfried & Gottfried 2004) argues that talent can be nurtured through favourable conditions and experiences. Gagné and Renzulli's work place different weight on the innateness of giftedness as compared with the experiential factors that relate to talent development. Renzulli's enrichment models centre on increasing achievement through widening participation (whilst allowing for more flexibility for self-fulfilment and consequently developing gifted behaviours). His key thought is to offer provision first, with identification second. Renzulli therefore takes a mid-point view of the nature-nurture debate, but leans more towards the notion that talent is nurtured.

Renzulli's own work can be seen as a development and refinement of the work of Sternberg, relying a great deal on Sternberg's thoughts and views. This is particularly the case with the Triarchic Intelligence Theory (1984) which provides a more inclusive approach to conceptualising giftedness and talent development. Sternberg (1984) believes that the successfully intelligent person demonstrates self-awareness through being able to identify their own strengths and weaknesses, compensating and adjusting the self and/or the environment accordingly. Renzulli uses Sternberg's intelligence research, in addition to wider gifted and talented research literature, to establish what he terms 'two kinds of giftedness': schoolhouse giftedness and creative-productive giftedness (Renzulli 1986). For Renzulli, there is a degree of commonality between the two forms of giftedness and there is usually some degree of interaction between them. This leads him to argue that special enrichment programmes should make appropriate provision for encouraging both types of giftedness (Renzulli 1986).

### *Schoolhouse giftedness*

Also termed as “test-taking or lesson-learning giftedness” (Renzulli 1986:57), schoolhouse giftedness is measurable through cognitive ability tests, academic exams or Intelligence Quotient (IQ) tests. Although he acknowledges the role of testing for identification of this form of giftedness, Renzulli is clearly against tests as a means of identification. He is concerned about those pupils whose test scores would lie just outside restrictive cut-off scores. For example, those who attain 84% would be excluded from the programme on the basis of being 1% outside the 5-15% threshold score. It is interesting that he does not use the same 10% threshold as Gagné, but expands this to 15%. Regardless of this, Renzulli notes that many young people outwith the threshold score (be this 10 or 15%) are capable of advanced levels of work (Renzulli 1986). Renzulli implies that teachers may find testing useful, however they may place too much trust in test scores rather than using their professional judgement about pupil ability. Testing is not the ultimate answer to the identification problem – instead it is more important to consider the appropriateness of a test in regard to the individuals and the context (Olszewski-Kubilius 1999).

### *Creative-productive gift*

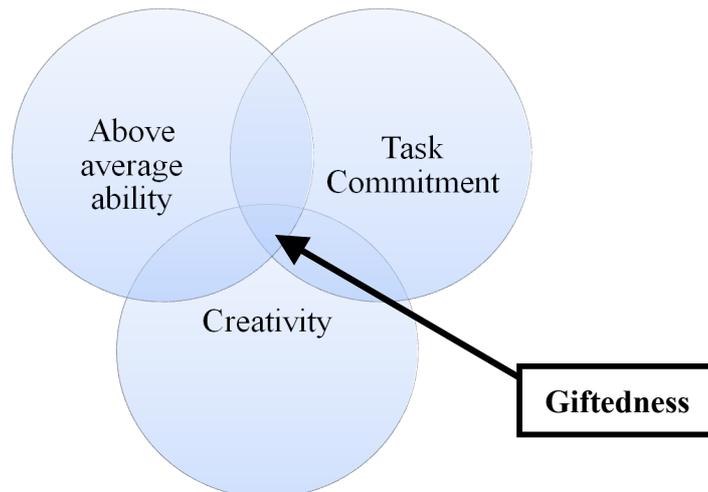
Testing is not the only or ultimate means of identifying gift and/or talent. While there may be merit in the useful data it can provide for teachers about children’s learning needs, the discussion in the chapter so far has pointed out that there is a need for a number of approaches to the recognition of ability in young people. A further Renzulli-Sternberg connection is found within Renzulli’s second area of creative-productive gift. This form of giftedness requires a shift of ‘power’ within the classroom, with the pupil encouraged to become a researcher and enquirer, attempting to solve questions identified through their own interest(s). This is a key feature of the enrichment models. Renzulli considers creative-productive giftedness to be “those aspects of human activity and involvement where a premium is placed upon the development of original material and products that are purposefully designed to have an impact on one or more target audiences” (Renzulli 1986:58). Emphasis on interaction reflects that it is the way in which the individual becomes involved with the resources or environment which indicates the nature of the gift. In other words, Renzulli deems the individual to be the causal factor in the environment (Gagné 1995b) and is interested in the reactions which occur because of this combination. Whereas Gagné (2004) is interested in how the environment impacts on the individual’s

intrinsic drive, Renzulli (1977) is interested in how the individual interacts with the environment in ways which develop talent. From their own research, Barab and Plucker (2002) consider that giftedness is the product of a 'smart context', a specially constructed environment which is supportive of the learning process, a view which would align to the thoughts of Renzulli (1977). Barab and Plucker (2002) suggest that the individual does not possess the ability, but that their ability is determined through the actions of the participant within their surrounding environment.

### **The Three-Ring Conception of Giftedness**

The Three-Ring Conception of Giftedness (Renzulli 1986) expands the concept of giftedness. Unlike Gagné's beliefs regarding gift and talent, Renzulli considers the need to include the potentially gifted, or those who demonstrate that they can achieve gifted behaviours through interacting with people and contexts. He believes that the focus should be on developing gifted behaviours in children who demonstrate high potential (Renzulli 1998). The Three-Ring Conception was designed after retrospective analysis of the attributes associated with people 'officially' termed as gifted. No single attribute constitutes giftedness. Instead, to be termed as gifted requires the interaction of all three attributes, with giftedness occurring at the intersection (Renzulli 1978) (see Figure 4.1). Each ring, or cluster of traits, is as important to talent development as the others, although each ring may be disproportionate in size (for example, an individual may demonstrate more task commitment than creativity, therefore this ring will be larger in proportion) (Renzulli 1978).

**Figure 4.1: The Three-Ring Conception of Giftedness, (Renzulli 1986:66)**



The Three-Ring model is not necessarily an explicit identification procedure; however it does provide insight into common attributes shared by individuals who show traits associated with developed talent.

#### *Above average ability*

Within the Three-Ring model, an individual can demonstrate above average, “though not necessarily superior” (Renzulli 1986:65) ability in any endeavour. The term ‘above average’ implies that there is something which is beyond a basic level of competency or norm; however, it suggests that Renzulli believes that above average ability is *not* superior. Renzulli’s work does not offer any great depth of analysis with regard to this view. Instead, it brings in an additional term of ‘well above average ability’:

Within this model [three-ring conception] the term *above average ability* will be used to describe both general and specific abilities. *Above average* should also be interpreted to mean the upper range of potential within any given area. Although it is difficult to assign numerical values to many specific areas of ability, when I refer to ‘well above average ability’ I clearly have in mind persons who are capable of performance or the potential for performance that is representative of the top 15-20% of any given human endeavour. (Renzulli 1986:67).

In this instance, ability is subdivided into two aspects: *general* (a traditional cognitive processing style of learning measured by tests of aptitude or intelligence) and *specific* (the capacity to acquire specialist knowledge and to relate and use this within a ‘real-life’ context) (Renzulli 1986). While it appears that Renzulli considers ‘above average’ to be an umbrella term for the general and specific attributes, it does not completely establish a difference between ‘above average’ and ‘well above average’. Arguably, a more suitable view would be to consider ‘above average but not superior’ to be reserved for those who possess the potential to become gifted, with ‘well above average’ reserved for those who are performing within the top 10-15% threshold. This thesis takes the view that the latter is clearer, deeming those who hold potential for giftedness as ‘above average’, with those who are currently demonstrating gifted or talented behaviours as ‘well above average’. Renzulli believes that an individual’s contribution cannot be discounted if they underperform in a particular area. The Three-Ring model as a whole reflects that the talented or creative do not necessarily perform within the top 10-15% threshold so passionately clung to by traditional conceptions of giftedness.

### *Task Commitment*

The second cluster in the model moves from the cognitive area into a motivational realm (termed as *task commitment*). Renzulli compares this motivation to high energy. However, it could be said that task commitment could also be synonymous with interest, persistence or enthusiasm (Renzulli 1986). Task commitment relies greatly on the individual’s vision and determination to self-select and carry out tasks related specifically to themselves. Gottfried and Gottfried (2004:127) support this by stating that “motivation is a developmental process, emerging as early as infancy. Children who find task engagement enjoyable at an early age are more likely to continue to immerse themselves in cognitive tasks that provide enhanced levels of stimulation”. It is this drive or higher motivational ability which is the definitive factor of a gifted individual, yet, it is also the trait which requires a great deal of self-awareness. Renzulli (1978:183) notes that one of the main characteristics of successful gifted individuals “is the ability to involve oneself totally in a problem or area for an extended period of time”.

## *Creativity*

The final element of the model is creativity, a trait of divergent thinking. Although creativity has a significant role in creative-productive giftedness, it can be the most difficult attribute to discuss and measure (Renzulli et al. 1981). To Grigorenko (2007) creativity is a trait which is inherited and which can be modified, with innate creativity developing through interaction and access to opportunities. Although she is discussing development in relation to creativity, a parallel can be drawn to the giftedness conception of Gagné (2004) wherein he considers ability to have a biological basis. Grigorenko's (2007) view infers that creativity is innate in all of us to some degree, yet suggests that individuals can enhance their creative skills through teaching or through some intervention aimed specifically at developing creativity.

In their analysis of creative testing literature, Plucker and Renzulli (1999) stress that creativity relates to both cognitive and affective skills (creative thinking) as well as to personality traits, indicating that creativity may be measurable through psychometric tests. However, Renzulli (1978) argues that tests cannot be true measures of creativity. For Renzulli, the main and most authentic test of these products is their application in the real-life context (Renzulli 1978). This is similar to the view of Gagné (2004) who prefers assessing the developed talent as opposed to the learning process or raw gift. Alternative means of assessing creativity (for example, observation or self and peer nomination) may raise questions of validity because of differences in perceptions of giftedness, but Renzulli's (1977) notion of assessing a final product would be one alternative means of judging creative attributes.

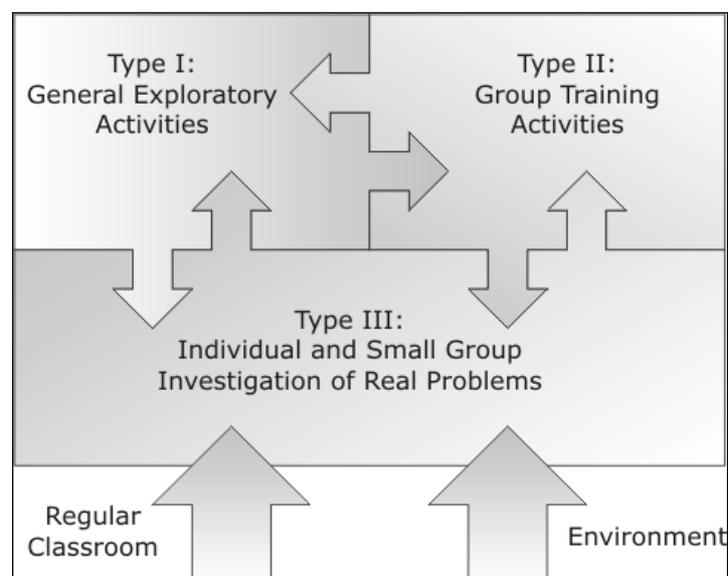
## **Enrichment**

Throughout Renzulli's research, 'enrichment' is a key term. To Renzulli (1977:13-14), enrichment is related to the "experiences or activities that are above and beyond the so called *regular curriculum*". He believes that the gifted or potentially gifted child may not be stimulated or challenged in their school provision and so argues that a more conscious effort to acknowledge and accommodate the child's interests and preferred learning styles is necessary (Renzulli 1977). Enrichment is a wide area affecting not only the mainstream classroom, but one which extends to events and opportunities beyond the school

curriculum (Renzulli 1977). One of Renzulli's aims is for pupils to take ownership of their own learning, extending their cognitive processes through an ability to ask searching *how* and *why* questions, and taking a proactive role in understanding their own learning preferences (Renzulli 1977). Individuals need to be able to understand learning in the context of their own personal needs. Renzulli argues that until the 1970s, gifted education was 'disjointed' with many activities bearing little relation to wider learning contexts or to the overall development of the individual. To increase awareness of student interest, Renzulli recommends two objectives: firstly, for children to pursue their own personal interests in a style with which they are comfortable, and secondly, for the teacher to become facilitator or learning partner (Renzulli 1977:10). These objectives are evident in Renzulli's three models: the Enrichment Triad Model (1977), the Revolving Door Identification Model (RDIM) (1984), and the Schoolwide Enrichment Model (SEM) (Renzulli & Reis, 2007). The models are therefore partly about teaching and enrichment in addition to identification.

Figure 4.2 (below) presents how Renzulli envisages the Triads interlocking with one another. Type I and II activities are suitable for all learners (gifted or otherwise), offering the opportunity to expand upon interests and which consequently act as a basis for further development in Type III activities.

**Figure 4.2: Renzulli's Enrichment Triad Model/Revolving Door Identification Model (RDIM) (Renzulli 1977:14)**



The Revolving Door Identification Model (RDIM) (Renzulli 1984) encompasses both the Three-Ring concept in addition to the Enrichment Triads, providing a basis for a full programme of enrichment, from identification to ideas for real-life learning experiences. The model sees the identification process as occurring within daily classroom activities, based on the observations and professional judgements of teachers (Renzulli 1984). The RDIM is presented as a more inclusive model, providing access to experiences and additional services by establishing a talent pool of individuals who are thought to possess potential for giftedness instead of specialist opportunities for a select few. Although selection for the talent pool does not necessarily make a child ‘gifted’, selection would provide them with the opportunity for their potential to evolve into gifted behaviours through access to specialist provisions (Renzulli 1984). Delisle and Renzulli (1982:94) stress that the “RDIM allows each student to ‘act gifted’ during particular time of maximum interest” therefore ‘acting gifted’ suggests that there must be a latent basis of general ability. However, Delisle and Renzulli’s (1982) idea of being able to ‘act gifted’ is unclear, suggesting that there is an element of pretence to gifted behaviours.

### **Critique of Renzulli’s theory**

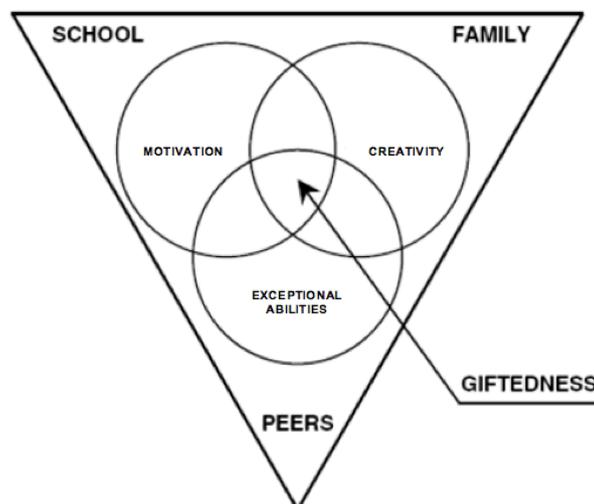
Whereas Gagné’s theory of gift and talent relies on the idea of an innate foundation of raw ability (Gagné 2004), Renzulli’s concept of gift and talent places emphasis on experiential factors in the development of talent (Renzulli 1977). This view relates to the ideas of Simonton (2004), Feldhusen (2004), Porath (2004) and Feldman (1999) (discussed in chapter 3). While some practitioners have largely accepted the views of Renzulli (Olszewski-Kubilius 1999; Pendarvis et al. 1999), criticism surrounds the vagueness of his theory and the incomplete nature of the concepts underpinning the theory. It could be said that lack of clarity and overemphasis of some statements leads to misinterpretation and confusion. In terms of the Three-Ring Model (Renzulli 1986), there has been criticism of the model’s conceptual clarity. Renzulli’s conception is that ability can be adapted and developed, but its fluidity and unpredictability make it difficult to measure in quantitative terms (Johnsen 1999). Johnsen (1999:104) suggests that witnessing such relational gift(s) requires the traits or gifted behaviours to be “observed during intervention or interaction with other traits – in a dynamic situation”. Pendarvis et al. (1999:76) believe that Renzulli’s cluster diagram (see Figure 4.1) conveys static attributes which “cannot portray fluidity or change”. Pendarvis et al. (1999) and Johnsen (1999) believe that the grouping of

the three attributes assumes that practitioners are required to identify students within each field rather than taking a more holistic approach to identification.

While the authors above have criticised Renzulli's Three-Ring Model, the research of Franz Mönks uses the model as the basis for his own thinking. Mönks' view, developed since the 1980s, is that talent is developed as the result of interaction between the individual's characteristics and the environment throughout the individual's lifespan (Mönks and Ferguson 1982; Van Boxtel and Mönks 1992; Mönks and Katzko 2005). Mönks believes that giftedness is expressed where "there is fruitful interaction among the various dimensions. Fruitful and positive interaction supposes individual social competencies" (Mönks 1992, cited in Mönks and Katzko 2005:191). Mönks' studies centre on the context for, and social aspects of, a young person's development, particularly the influences of family, peers and school which are deemed as "the most significant social environments" for adolescents (Mönks and Katzko 2005:191). Mönks and Katzko consider these three influences to be of particular importance in the realisation of the adolescent's abilities and in the shaping of their self-concept (Mönks and Katzko 2005).

Mönks' own contribution to gifted and talented research is through the Multifactor Model of Giftedness (2005) (see Figure 4.3, below).

**Figure 4.3: Mönks' Multifactor Model of Giftedness (Mönks and Katzko 2005:191)**



As can be seen in Figure 4.3 above, Mönks' concept reflects Renzulli's Three-Ring Conception of Giftedness (1986) (see Figure 4.3), but Mönks' interpretation accommodates the broader influences of family, peers and school (Van Boxtel and Mönks 1992).

Mönks believes that his multifactor model can promote both the identification and the development of the learner's ability (Mönks and Katzko 2005). He considers that each of the three influences (school, family and peers) can gather valuable information about the learner and assist in the creation of appropriate opportunities which cater for individual learning needs. These influences could be seen as 'gatekeepers' to future opportunities and provisions. Whereas much of the literature on gift and talent focuses on the level of ability or the type of ability, Kersting (2003:17) believes that gatekeepers tend to look "beyond talent to personal characteristics in their selections" while deeming the importance of social skills rather than academic related merits. Mönks and Katzko (2005) argue that gathering information from these social and cultural dimensions can assist in the identification of gift as well as in providing opportunities which help to develop the individual's ability.

Renzulli's models indicate that establishing a positive and constructive school ethos influences the way teachers and students commit to learning (regardless of age or stage). However, Olszewski-Kubilius (1999) believes Renzulli's models are narrowly focussed upon the academic needs of the child rather than taking a holistic approach. She considers methods of measuring ability through standardised testing to be unsuitable and restrictive, firstly to young children who cannot participate in an academic based test and secondly in the creation of a general, homogeneous group of 'gifteds' (Olszewski-Kubilius 1999). It appears that Olszewski-Kubilius (1999) is more in favour of Gagné's (2004) recognition approach to identification, observing ability within everyday situations that may present greater opportunities for the ability to surface through more natural means. Olszewski-Kubilius' (1999) second point regarding the homogenous group does not discourage testing. She argues that Renzulli does not utilise test information appropriately. Olszewski-Kubilius (1999) notes that additional assessment is required to extend beyond the purposes of identifying for talent development programmes and to acknowledge that within any group there is an assortment of learning needs which require different forms/levels of

support and provision. Equality of provision and an inclusive ethos are important, however, it may be difficult (if not impossible) to control equality of experience due to the many factors which affect our learning disposition.

Although Gagné (2004) provides examples of various levels of influence in some detail (macro, micro and milieu) and embraces them within the structure, Renzulli does not explicitly state where these influences may take form (Olszewski-Kubilius 1999). Johnsen (1999) states that Renzulli overlooks the 'finer' details of the learning environment such as the relationships between people (for example, peers or teachers), the learning and teaching styles used, and the resources available. While measuring and observing the 'finer' factors is a time consuming process, Johnsen (1999) believes that the researcher is required to identify, select and rank the factors which may produce the "greatest likelihood of giftedness" (Johnsen 1999:106), possibly at the expense of the more diverse attributes. There is a need for these additional personal factors to be acknowledged in the overall process, not only to understand the ability of the individual but also to provide teachers with the information about pupils' needs.

For Olszewski-Kubilius (1999), Renzulli's approach to defining creative-productive giftedness is overly reliant on the need for a finalised product or outcome. She describes creative-productive giftedness as an adult phenomenon, "with the exception of prodigies who produce adult-level work and only in a few, relatively circumscribed fields" (Olszewski-Kubilius 1999:63). Similarly, Johnsen (1999) indicates that Renzulli's models relate more to adult abilities and traits rather than to the abilities found in the classroom context. In order to be more pupil friendly, Renzulli would have needed to devise some measure specifically for a school context, having a child-centred focus. In later works, Renzulli (2007) began to stress that products, although an important factor of contextualised learning, are not necessarily the singular or ultimate targets. Instead he suggests that an additional "major goal is the development and application of a wide range of cognitive, affective, and motivational processes" (Renzulli et al. 2007:40). It appears that, for Renzulli's later work, it is participation and use of skills (rather than full development of the talent) which is the important factor of the process.

## **Carrie Winstanley and the ingredients of challenge**

Although coming from two differing perspectives, the work of Gagné and Renzulli share certain commonalities, largely the idea that talent can be shaped and transformed through a learning and development process. The work of Carrie Winstanley can be thought of as lying within a continuum which includes the ideas of Gagné and Renzulli, seeing ability as an innate aptitude requiring “increased practise and commitment, which in turn fosters improved performance” (Winstanley 2004a:18). Her view also suggests that ability can be seen as untapped potential which requires an opportunity or experience to be uncovered. Her teaching preference is for individual challenge, with each child being provided with a stimulating experience (catered to their own unique needs). She does emphasise that there is no singular, correct method of identification, yet she does not relay how a practitioner could identify a child of higher ability.

Winstanley’s interpretation of ‘giftedness’ or ‘high ability’ is more open-ended and non-traditional than Gagné and Renzulli. Her view is formed through personal experience as a practitioner in various educational institutions, as a Special Education Needs Coordinator (SENCO) and latterly a philosopher. Her contribution does not lie in empirical research, but in developing ideas of gift and talent through analysis and commentary on literature and legislation. Winstanley (2006) is supportive of opportunity for all children, some of whom may have untapped potential, and her work focuses upon the underachieving gifted child whose skill may be masked by disability or circumstance. She states that “these pupils [the masked gifted] are often mistakenly rated as less able by their teachers, who find it difficult to accept that children can be able and still have learning and other problems” (Winstanley 2004a:xvi). Her view broadens the concept of giftedness to include those who would not fall within the 10-15% threshold, but who do have high ability. Winstanley’s (2006) needs-based approach to inclusion and provision suggests that her concept of gift and talent is more inclusive than Renzulli’s.

Winstanley (2007) argues that all children are morally entitled to educational challenge to develop to their full potential. The term ‘morally entitled’ (Winstanley 2006) in this sense relates to the issue of rights of fair treatment and opportunity for the child, an issue which will be discussed in more depth later in this chapter. Again, her belief in a stimulating and

enriching school education appears to be in alignment with Renzulli's (1977) views. However, Renzulli places more emphasis on specialist facilities and input from outside the mainstream classroom whereas Winstanley (2004b; 2006) places emphasis on mainstream and educational provision with specialist support (where necessary). Where specialist provision is required this should be part of the child's schooling "even if this requires provision beyond the basic curriculum" (Winstanley 2004b:np).

Winstanley's interpretation of high ability embraces the abilities of minority groups and those who possess high ability yet, for various reasons, are unable to demonstrate and relay their skills in a conventional manner. In particular, she focuses on children who

do not fit the conventional image of 'good behaviour' (which usually means unquestioning compliance). Teachers' concern is often for rewarding conventional behaviour and task completion rather than encouraging less obviously talented pupils. This is disappointing, as enrichment could provide these pupils with the chance to explore unusual ideas, unlocking motivation, or just the freedom to explore their own strengths in a non-judgmental environment, free from the pressures of their peers who think their abilities are 'uncool'. (Winstanley 2006:23)

There are numerous difficulties which may lead to underperformance in the classroom, for example varying interest or engagement with a task, guilt, where a child feels awkward at the additional provision on offer to them, or 'tall poppy syndrome', where pupils opt to underperform because of peer pressure (Freeman 2001). Additional reasons may include cultural dissonance, a mismatch between home and school values, or a disability which impedes the expression of talent.

Winstanley draws on experiences with children who have educational support needs through her work as a SENCO, noting that:

[s]ome children have learning difficulties that can mask exceptional ability. Most common problems are of a dyslexic nature – the child may have handwriting difficulties which are too often dismissed as laziness or petulance. Others just do not do well in tests. Some very able pupils manage to compensate for learning difficulties for much of their school career and may achieve reasonably, so (do) not attract attention. (Winstanley 2004a:30)

Winstanley interprets this situation in two ways. Firstly, the disability may present a difficulty in recognising current ability or future potential; secondly, the education system is partly to blame because of curricular limitations and constraints, as well as lack of teacher knowledge, understanding and training in how to support these learners (Winstanley 2004a). Practitioners are now more receptive to learning support needs such as dyslexia and challenging behaviour. However this constitutes only two of many aspects which must be dealt with in the busy classroom. Similarly, these masked or ‘invisible’ children (Winstanley 2004a:29) and their high ability needs are likely to be overlooked if practitioners simply focus on the individual’s disability. These underachieving or invisible individuals have been the subject of Government funding, especially in England, yet in Winstanley’s (2004b) opinion such actions could be likened to a compensatory attempt to increase public support for political parties and in danger of being tokenistic.

### *Elitism and challenge*

It is difficult to challenge the idea that education should nurture children to their full potential (Winstanley 2004a). Winstanley notes that there is concern regarding gifted education and provision for what is deemed to be an already privileged group, viewing additional resources as an “unnecessary luxury” (Winstanley 2004a:44) arising from an assumption that “highly able children are assured success” (Winstanley 2006:22-23). The idea of an unnecessary luxury emphasises a misconstrued or ill-informed generalisation of the highly able. Winstanley feels that such a view is found largely within developed countries, where educational attainment is favoured. Such cultures value academic and school based notions of gift as opposed to the practical survival abilities required in some cultures. She believes that creating opportunities for learning and educational support for all children will help them to realise their potential (Winstanley 2004a).

It is over-emphasis on the academic, achievement-based, model of gift that Winstanley (2004a) considers as restrictive and narrow. As her work suggests, children who have high ability in classroom-based learning and tests have probably come from a pro-school home environment which appreciates the value of educational success. She notes that an area of concern is the drive of institutions to encourage academically gifted behaviour through focus on a narrow set of subjects and associated skills which, either consciously or subconsciously, overlooks the more unique attributes of the individual. Freeman (2001:3) is also aware of this, believing the answer to be a change in focus from achievement and attainment to potential: “they [gifted children] should be recognised as the carriers of much greater than normal potential”. It is interesting that the word potential has been used here, suggesting again a similarity between Winstanley and Renzulli’s views. Although not everyone will fulfil this potential and transform it into a gift or talent, opportunity should be provided nonetheless (Winstanley 2004a).

The view of elitism discussed so far has focussed on what could be perceived as the less positive aspects of the term. However, the term can also serve as a useful indication of those individuals within a subject or field who are capable of demonstrating a high performance standard. Winstanley (2006) notes that there is a general consensus in society which encourages and supports the development of elite performance and ability, therefore suggesting that an ‘acceptable’ (less negative form) of elitism relies on the language and approach used, more so in relation to provision:

[t]here is no reason why providing for the able should be elitist in the negative sense of the word, if suitable criteria are applied. There is little point designing activities of no value to potential participants. Restricting them to people who have the requisite skills, experience or interest is acceptable. It would be less contentious, however, to describe this tactic as ‘appropriate provision’, rather than ‘elitist provision’. Reactions against elitism often hinge on notions of fairness and desert. We tend to feel that privilege should be earned, and where it seems that people are awarded extra entitlements for no good reason we quite rightly consider this to be elitist and unfair. People should be awarded privileges in keeping with their effort and achievements; they should be given advantage through merit. (Winstanley 2006:31)

‘Elitism’ and ‘elite’ are two different terms – elitism is to favour some over others not dependent on ability (Sloman, 2009). ‘Elite provision’ therefore presupposes that some pupils or individuals are considered to be elite in ability. Winstanley (2006) acknowledges that although education does attempt to address unfairness and present individuals with opportunity to develop, the highly able (regardless of background or status) exist and merit appropriate support to extend and develop their own needs. This justifies the notion that specialised provision for pupils with an elite ability may be necessary to develop talent to a specialist level. The concepts of ‘elite’ and ‘elitist’ are not without challenge, and this challenge will be discussed in more depth in later in this chapter.

With these considerations in mind a distinction is required between equality and fairness. In an ideal society all needs would be appropriately catered for, however limited financial support and provision means that decisions must be made and priority allocated. Winstanley is of the opinion that this is reflected in the misconstrued nature of gifted education which represents an “age-old conundrum” where there is “undeniable tension in striving for both equality and excellence in education” (Winstanley 2006:22). What can or should be done for individuals relies upon equality of challenge, an approach which ensures that each participant is adequately stimulated through additional resources or opportunities by the task at hand as per their own specific need. For this there is a need to define what ‘challenge’ means.

### *Challenge*

As with high ability, ‘challenge’ is difficult to define. Winstanley (2007) associates challenge with general classroom pedagogy, achieved through good teaching and the appropriate pitching of task to the specific pupil level. As seen with Renzulli’s (1977) models of enrichment, there has been thought given to the best way to challenge and accommodate the development of the highly able whilst simultaneously embracing the child’s own interests. For Winstanley (2007), challenge is comprised of seven components or ‘ingredients’: subject area of interest (current or potential); use of child’s prior knowledge; use of child’s existing skills; cognitive dissonance and Zone of Proximal Development (ZPD); the real possibility of failure; the real possibility of success; and novelty or difference in tasks (Winstanley 2006). This allows pupils to have more freedom

to explore and develop using their peers, the teacher or any other knowledgeable source, for example the wider community. She believes that all children should be given the opportunity to develop a “genuine intrinsic motivation” (Winstanley 2004a:81) a desire to abstain from boredom which can be difficult to sustain if the task lacks value and purpose: “[p]upils need to be engaged in their learning and this can truly only happen when tasks are challenging” (Winstanley 2006:35). This is similar to the interest based learning of Renzulli, but with a specific and significant need for challenge. When a child becomes bored with their learning this can gradually become disaffection towards education until there is a rejection of schooling or, rather worryingly, a rejection of learning (Winstanley 2004a).

Winstanley (2004a) discusses three main activity areas (used by practitioners to include and develop the ability of the highly able within the classroom) which incorporate these ‘ingredients’ in some form. These areas are enrichment, acceleration, and extension. As seen earlier in Renzulli’s (1977) enrichment models, Winstanley’s (2004a) view emphasises that the enrichment form of activity requires teacher planning to ensure that the activities on offer are relevant and appropriate to ignite interest and promote development. She stresses that the nature of enrichment requires the school to provide a range of additional resources and activities which can be related or unrelated to curriculum content (Winstanley 2004a), however they are not “a kind of compensatory educational strategy as much as a way of allowing children opportunities to express their abilities” (Winstanley 2004a:91).

The second area of activity identified by Winstanley (2004a) is acceleration, where an able child is placed in a classroom to work with others from an older age group. This is viewed as a ‘hot-housing’ approach to ability, a form of intensive and highly structured education aimed at raising the ability level of young children (Howe 1990). Winstanley thinks that this is somewhat “sensationalist”, provoking great media reaction with children being “made to jump through hoops for the glory of the school rather than for their own development” (Winstanley 2004a:89). Although acceleration is not entirely harmful for the child, there is a risk of burn out and boredom associated with tasks which are not well planned. As indicated by Schwartz (1975), highly able children may perform at an above age-norm capacity, yet may not be at such an advanced level socially or emotionally and so

may not engage in, or understand, the task(s) successfully. One potential drawback is that, psychologically,

acceleration focuses a child firmly in the direction of achievement. The major reason given by schools is to alleviate the child's apparent or anticipated boredom with the work their age-mates would be doing, and so is expected to encourage their continued enthusiasm for learning. (Freeman 2001:186-7)

The final activity area identified by Winstanley (2004a) is extension: activities planned to comprise what she terms as the 'must, should, could' approach. Within the planning process, consideration is made of the minimum that a child should gain from the task (must), with a recommendation for further tasks (should), and the provision of optional extension tasks (could) (Winstanley 2004a). Winstanley (2004a) notes that locating and creating appropriate extension material and activities can be difficult: practitioners may teach from a generic set of materials for efficiency, or may be confined by curricular constraints or perhaps through their own lack of skills.

The methods of inclusion discussed in this section are only examples drawn from a wide range of techniques. The nature of high ability, and the consequent provision and accommodation for future development, is diverse therefore teachers cannot rely on one strategy of inclusion. Instead practitioners should be encouraged to utilise their professional judgement to help focus upon quality of learning interactions between teacher and pupil rather than relying on test scores and identification of apparent traits of ability (Winstanley 2004a).

### **Critique of Winstanley's theory**

Winstanley's theory takes a needs-based approach to talent development, with all learners provided with the opportunities, resources and challenge necessary for development within their schooling (Winstanley 2006). It could be argued that in order to meet such an assortment of needs there will have to be some degree of difference in the nature and level of challenge and provision available. The entitlement of highly skilled individuals within a

subject to be developed and flourish further would therefore make elite provision an entirely different concept to the view of elitism. Cooper (1975) describes the elite in terms of educational transformation. He believes that some people are more transformed through educational activity than others: if they possess the ability or potential ability to develop and become even more transformed, they should be provided with the opportunity to do so. He notes that “egalitarianism necessarily outlaws any inequalities that do not benefit all” while “[t]he highest attainments, typically, require specifically favoured conditions” (Cooper 1975:126). Cooper also notes that

[t]he egalitarian does not simply demand equality; he must add that the benefits each enjoys should be as high as are compatible with every other person enjoying like benefits...he must demand that each should receive the highest quality education compatible with every other person receiving a like education. (Cooper 1975:128)

It could be said that this is a contradiction in terms. If an individual cannot benefit from an opportunity that cannot be shared by all then this is deemed by egalitarians as elitism. Then again, if an elite individual who satisfies the appropriate skill criteria to continue to develop is not granted an opportunity to develop his/her skills through the same or similar provisions as subject peers then this in itself could also be considered as elitism. The individual has been denied the opportunity to participate even though she possesses the elite skill. Winstanley (2004b) believes that there is justification for elitism and elite provision in school and perhaps a form of elitism may be unavoidable:

Children capable of extremely high levels of attainment, outstripping standards that usually count for excellence amongst their peers, could be asked to participate in activities unavailable to some other pupils. If this is indeed ‘elitism’, it could have a place in schooling, with inclusion and ability important in ensuring maximum benefits from activities. (Winstanley 2004b:np)

O’Hagan (1975) calls this ‘positive inegalitarianism’ stating that “inequality in education (unequal access to and distribution of educational goods)... is a value to be pursued for its own sake” (O’Hagan 1975:138). Winstanley’s (2004b) interpretation of the terms elite and

elitism err towards fairness and equality rather than acceptance of unnecessary or irrelevant divisions. She hints at a positive inegalitarianist view without explicitly stating this. Being elite is not an act of social engineering but an acknowledgement that some individuals do possess an ability which is above average. It is purely ability (be this current or potential) and not merit or social status which should conceptualise the elite, therefore there will be differing nuances which separate these high performers from the norm. In Winstanley's (2004b) opinion, these nuances arise from different innate aptitudes or learning dispositions in individuals.

### *Learning disposition and challenge*

The intrinsic nature of development which lies at the centre of Winstanley's (2006; 2007) thoughts suggests that her work requires the establishment of a learning disposition, with the individual knowing his/her own abilities in order to develop and improve further. It could also be argued that the establishment of a learning disposition is related to challenge. Challenge is identified by Freeman (2001) as a necessity for highly able children. She notes that the gifted child requires more intellectual stimulation than the average child and should be encouraged from a young age to participate in more thinking exercises to discover and uncover their own learning needs: "[a]ll children need plentiful practise in sizing up tasks, analysing problems and assessing goals, as well as attempting solutions" (Freeman 2001:206). This point of view is shared by Winstanley (2006), whose work suggests that children are quite aware of their own limitations and requirements with regard to challenge. Within the classroom, provision of challenge relies on the teacher as an initial starting point: "[t]eachers often know perfectly well how to provide challenge by designing tasks that capture children's imagination" thereby establishing a positive 'buzz' around the learning experience (Winstanley 2004a:82).

Claxton (2007) is supportive of this view and feels that teachers can encourage children to expand their learning abilities and positive dispositions for learning through building upon the success of past challenges. The main advantage of Claxton's (2007) view of learning dispositions, or willingness to learn, is the adaptability and responsiveness to any form of learning situation, either academic or non-academic in nature. Encouraging a child to establish their own disposition to learn in a relevant area may promote or foster ability in

other areas (see Claxton 2007). Claxton discusses attributes possessed by the “effective learner” (Claxton 2007:116). These attributes can be applied to a number of activities or subjects, and include self-awareness, curiosity, open-mindedness, critical ability, scepticism and analytical ability. However, knowing how to utilise these skills and components in the appropriate manner and circumstance(s) requires refinement and needs encouraged within a supportive environment:

[i]f schools are serious about helping young people to get ready for a learning life, they have to think not only about what the skills of learning are, but about how, deliberately and methodically, to help those skills become stronger, broader and deeper. (Claxton 2007:120)

Claxton’s thinking does parallel Winstanley’s in several ways, predominantly in noting that the pedagogical experiences within the classroom (and the school) will change, with practitioners being responsive to the learning needs of their pupils. He acknowledges that encouraging pupils to select and direct their own learning experiences does require change in the teacher-pupil relationship, a shift in power which some practitioners may not be in favour of: “to hand control back to the students may be unfamiliar, and easily overridden by teacherly habits that are older and stronger” (Claxton 2007:124).

Olzsewski-Kubilius also notices the effect of the learning environment on both the learner and their assimilation of challenge. She sees a need for

having teachers who are professionally involved in the domain of their subject area and share their enthusiasm with students, and being in learning environments where the challenges are above students’ current skill levels but not beyond their capabilities. (Olszewski-Kubilius 1998:90)

Where pupils are invited to participate, and where their opinions are heard, they should gain more understanding of their own capacities. Claxton and Meadows state that where teachers “scaffold, guide, interpret, comment on and evaluate children’s activities” this

may then set up “corresponding habits and expectations in the child, some of which may be ‘education-positive’ and others not. Recurrent rituals may sow and water the seeds of certain ways of thinking and talking (Claxton & Meadows, 2008:3).

While Winstanley (2006) places great emphasis on a needs-based approach to challenge and learning, the lack of a model for identification in her work is interesting. Identification is necessary if we are to accommodate and provide appropriate challenge for any child. It could be said that, through analysis of current identification methods and models, Winstanley (2006) is implicitly demonstrating a preference for particular identification methods over others. Her work suggests a preference for observing the pupil’s reactions or performance in relation to the experience or opportunity rather than measuring giftedness through batteries of tests or checklists. However, this is neither an original contribution nor does it give guidance as to how a teacher can differentiate between the able and highly able child. It would have been valuable to gain an insight of how Winstanley recognises and identifies ability and potential particularly in relation to her experiences with the underachieving highly able children. This appears to be a common theme emerging from research. Reis (2003) notes that very few authors have translated literature research into empirical and practical studies. He states that

research on effective intervention models for this (the masked) population remains scarce. Although conducting case studies and qualitative research on underachieving gifted students has become quite popular, very few researchers have attempted to utilize true quasi-experimental designs to study the efficacy of various interventions. (Reis 2003:25)

McCoach et al. (2001) acknowledge that attempting to identify masked giftedness is difficult, because the pupils do not constitute a homogeneous group. The authors believe that masking takes three forms: gifted students with mild learning difficulties, learning disabled and gifted students, and the unidentified gifted or learning disabled student (those who cannot fully communicate their skills) (McCoach et al. 2001).

As indicated in this chapter, the highly able do not necessarily constitute an already privileged group within society. They are unique individuals with individual needs. As has already been discussed both in this section and in relation to the other two models earlier in the chapter, practitioners cannot simply overlook those who can attain or hold the potential to attain the minimum requirement. Education should encourage the highly able to flourish, to establish new learning dispositions and interests through additional support: “[i]t is fair to do something for highly able children. It is unfair to do nothing” (Winstanley 2004a:84). A needs-based approach aims to incorporate the development of all individuals at their own level and will inevitably create inequality be this of resource or opportunity (Winstanley 2006). The main concern with such an approach is that it should focus upon the quality of provision for the child at their own appropriate level rather than being concerned about the inequality of the spread of resources. Teachers must therefore focus on providing an interesting and quality experience for all children, gifted or otherwise, aiming to increase the child’s disposition for learning through participation at the individual’s own level.

## **Conclusion**

The discussion of the work of Gagné, Renzulli and Winstanley in chapters 3 and 4 suggests that a definitive concept of gift or talent is unachievable. In addition, the process of identification is more complex than simply testing for ability. Opposing sides of the nature-nurture debate are seen through the work of François Gagné and Joseph Renzulli. Gagné’s belief of a raw, natural gift emerging through a developmental process is indicative of an innate interpretation. His view centres upon the cognitive development of young children. Gagné not only acknowledges the maturational and academic development of the child, but the influences (both positive and negative) which may affect this process of translating raw gift to developed talent. On the other hand, Renzulli perceives this innate view as elitist in its insistence that talent or mastery of skill is attainable only by a small number of individuals. The criticism of elitism is also seen in the work of Winstanley, who believes educational challenge is an entitlement for all children, with needs being met as a part of the child’s compulsory schooling - even if this requires additional provision not usually found within mainstream education. Although lacking a model for identification, her work does accentuate several ideas which can influence perception of provision for the highly able, especially elite provision. Unlike Gagné and Renzulli, Winstanley’s work is more

holistic in approach, focussing on specific groups of children identified as gifted (in particular the underachieving gifted) in relation to the ways in which teachers can promote and encourage participation to meet the child's needs appropriately.

In order to develop talent there needs to be individual capability across a number of areas within a field of learning, therefore the next chapter will consider what psychological aspects relate to concepts of capability in talent development.

## **5 Contexts for talent development: capability, self-efficacy and mindsets**

After exploring the general concepts of gift and talent in the previous chapters, there appear to be a number of ‘grey’ areas which merit further analysis. These are: what it means to be ‘capable’, the role of self-efficacy, and the importance of mindset. While the authors discussed in the previous chapters note the role of motivation in the development process, it is Gagné’s view of motivation or belief in volition and self-management which proves most interesting. For Gagné, motivation and volition are two separate features within the development process. He notes that motivation is related to the interests and intrinsic and extrinsic needs of the individual, whereas volition equates to perseverance, resilience, self-control and effort (Gagné, 2007). This distinction is seen in the Differentiated Model of Gift and Talent (DMGT) ‘trio of catalysts’ (Gagné, 2004). However, as discussed in chapter 3, some researchers such as Feldhusen (2004) and Porath (2004) believe that Gagné does not offer enough discussion or analysis of the catalysts or fully recognise the role of agency within the development process. In light of the critique of Gagné’s work, an additional literature search around the area of volition emphasised that his views relate to the concepts of capability, self-efficacy and mindset. This chapter will therefore explore these three concepts in general terms before further analysis in the empirical data collection chapters.

### **Capability**

From the views of Gagné (2000a; 2004) regarding volition, the related research literature underlines that this is synonymous with ‘capability’ studies. Cairns (1996:80) is of the opinion that capability is the “capacity to handle the unknown, in times of change and in ways that show individual and corporate recognition of the role of the learner and learning”. Although Cairns’ (1996) view of capability is from a leadership and corporate learning environment, the crux of his opinion is that being capable is the ability to adapt and change in order to function in the future or for the unknown. It is not purely about competence (what the individual’s currently level of ability or knowledge is) but how an individual might apply him/herself to different contexts now and at a later date.

Cairns' ideas related to capability are shared by Hase (2000). Hase notes that there is a need to help individuals develop coping skills for the "highly turbulent environment" (Hase, 2000:1). In other words, he believes that the individual should be equipped with the strategies and skills to cope with the ever-changing context. His view suggests that learning and developing such coping strategies arises through experience and not necessarily through formal education. Hase (2000:3) terms this development process "heutagogy" or the capacity for "self-determined learning" (an alternative to pedagogical and andragogical approaches to education). What is interesting is that neither Hase (2000) nor Cairns (1996) overlook what it means to be competent but instead view competencies as base-line skills on which capability is based. Capability is therefore related to how one applies basic skills or competencies within a particular context.

In order to understand the relevance of capability in terms of the development of gift and talent, this section will discuss the concept of the capable individual in accordance with Hase's definition (2000). Hase (2000:1) defines a capable individual as one who

- is creative;
- knows how to learn;
- can use their competencies in novel and familiar circumstances;
- has high self-efficacy;
- works well with others;
- has appropriate guiding values for action.

A capable person is therefore one who possesses most, if not all, of these attributes and can apply them within current and forthcoming situations. This is perhaps best defined in Hase's commentary on these features, whereby he argues that those who demonstrate these traits are more likely to deal successfully with

inevitable change and crisis. They will be open to new learning that is associated with what is happening and will call on appropriate resources to be able to cope. Most importantly they will not be overly surprised by events. Capable people will, therefore, anticipate, and they will be self-efficacious. (Hase 2000:4)

Hase's (2000) view of heutagogy and capability emphasises the importance of the self in the learning experience. He believes that the individual has a responsibility for their actions and should be in control of their learning. This has parallels with Gagné's (2007) position on volition and Moon's (2003) concept of "personalised talent" (both discussed in chapter 3). In turn, an additional parallel could be drawn to the views of Carol Dweck (2006) and her research on mindsets. Dweck (2006) believes that it is how the individual views their own ability and capacity to develop which ultimately shapes how far they will progress. The role of mindset will be discussed later in this chapter.

### **Self-efficacy**

Whereas the previous section indicated the importance of encouraging the development of capable people, creating a capable individual requires an experience(s) which can nurture their skills. In relation to this chapter, an underlying theme related to Gagné's notion of volition in the talent development process is that of self-efficacy and, as noted by Hase (2000), this is a feature shown by capable people. As described by Bandura (1977), self-efficacy is belief in one's ability to undertake tasks (now and in the future). Self-efficacy in turn is influenced by emotions, behaviours and motivations (Bandura, 1994). Self-efficacy is a refined view of motivation which falls within a social-cognitive perspective (Dai et al., 1998). This perspective

postulates that human motivation in general and achievement motivation in particular are mediated by self-reflective and self-directive processes that have a salient cognitive component...This view of motivation departs from the traditional theory of achievement motivation in that, rather than assuming an omnibus achievement motive underlying achievement behaviours and treating achievement motivation as a trait or an invariant disposition, a social cognitive perspective views achievement motivation as determined by a multitude of personal and social-contextual factors mediated by self-processes. It also differs from the behaviouristic view of motivation in that it views human beings as capable of self-motivation, self-influence, and self-direction, instead of only passively conditioned by the environment. (Dai et al., 1998:46)

This suggests that self-efficacy relies on a close relationship between individual and environment, with each as important as the other. The environment around the individual contains potential stimuli, however it is how the individual uses this information and experience to direct and control their own learning which makes a difference: "[t]hrough

their actions people create as well as select environments. By constructing their own circumstances they achieve some regularity in behaviour” (Bandura, 1982:747).

Central to the concept of self-efficacy is the role of resilience and outcome expectation. In relation to resilience, Bandura’s work notes that there are threats and challenges to self-efficacy in any learning or development process: how a person perceives these potentially challenging experiences determines their level of commitment to developing mastery and higher self-efficacy within a given area (Bandura, 1977). To achieve success requires discipline, focus and resilience. Bandura considers resilience to come through

experience in overcoming obstacles through perseverant effort...[A]fter people become convinced they have what it takes to succeed, they persevere in the face of adversity and quickly rebound from setbacks. By sticking it out through tough times, they emerge stronger from adversity. (Bandura, 1994:71-2).

In order for resilience to develop, Bandura (1977, 1994) considers that there are four sources for the development of resilience and, consequently, self-efficacy:

- verbal persuasion – the interpersonal dimension of self-efficacy whereby the individual’s ability is encouraged by credible others or experts in the field;
- performance accomplishments – learning from a practical, ‘hands-on’ experience;
- vicarious experience – observational opportunities with emphasis on social comparison and benchmarking one’s own ability against that of others; and
- emotional arousal – the physiological element of development, the individual’s emotional perception of their own ability and how they interpret the context which surrounds them.

Each of these sources above is important in developing ability and in sustaining and encouraging the individual to achieve higher self-efficacy. All four sources contribute to the formation of high efficacy to varying degrees. They can promote ‘stickability’ or the individual’s resilience to overcome obstacles through persistent effort. Those who have higher self-efficacy view tasks as challenges to be mastered, using previous success as a guide and spur for future development (Bandura, 1977).

The second feature found within Bandura's (1977) concept of self-efficacy is that of expectations. As noted by Bandura (1977), he considers there to be two expectations related to self-efficacy: *outcome expectation* (the individual's perception that a certain behaviour will lead to a particular outcome) and *efficacy expectation* (the individual's belief that they possess the required behaviour or potential to obtain the outcome). Although different in focus, both expectations are required for self-efficacy. Of the two, it would appear that efficacy expectations are important largely as these relate to the individual's awareness of their own ability and their focus on accomplishing personal goals. Efficacy expectations determine

how much effort people will expend and how long they will persist in the face of obstacles and aversive experience. The stronger the perceived self-efficacy, the more active the efforts. Those who persist in subjectively threatening activities that are in fact relatively safe will gain corrective experiences that reinforce their sense of efficacy, thereby eliminating their defensive behaviour. Those who cease their coping efforts prematurely will retain their self-debilitating expectations and fears for a long time. (Bandura, 1977:194)

Bandura (1977) emphasises that efficacy expectations have two main dimensions which influence performance. These dimensions are: *magnitude* (the level of difficulty and the tasks which the individual believes they can accomplish) and *strength* (the perseverance of the individual to accomplish mastery) (Bandura, 1977). A third dimension is indicated as *generality* (or the learning being a transferable experience) (Bandura, 1977). Before an individual begins a task they reflect upon these dimensions, assessing if the activity is realistic and worthwhile to their goals. A similar view is found in expectancy-value theory (O'Neill, 2002). This theory aims to uncover why an individual is interested in a specific task. It rests upon four components: *attainment value* (the individual belief about likely task success), *intrinsic motivation* (enjoyment and pleasure of participating), *extrinsic utility* (the value of learning for future goals), and *perceived cost* (the allowances such as time, effort or finance which the task will incur) (O'Neill and McPherson, 2002). This view is also noted in the work of Dweck (2006), who believes that there is merit in the concept of mindset.

**Mindset: possessing the attitude and interest to develop**

Capability and self-efficacy are underlying factors in the development of high ability. The notion of resilience and determination to succeed has been noted by both Dweck (2006) and Sternberg (2003a; 2003b; 2003c). The work of these two authors shares ideas with those expressed earlier by Cairns (1996), Hase (2000) and Bandura (1977, 1994). Both Dweck (2006) and Sternberg (2003a; 2003b; 2003c) consider that interest development is important, as is the development of coping strategies in order to face challenge. A feature of Dweck's (2006) research on mindsets is the view of mindset as an attitude, a drive which separates some individuals – those perceived by society as gifted or highly able – from others. Dweck (2006) believes that there are two mindsets which influence the way in which individuals approach learning. Those who have a fixed mindset believe that intellectual ability is innate and at a fixed level (which is independent of individual effort), while those who have a growth mindset believe that ability can be cultivated and developed in order to achieve desired goals (Dweck, 2006).

Dweck elaborates on these mindsets, noting that each mindset contains a distinctive conceptualisation of ability. With the fixed mindset, ability is regarded as effortless and natural so any effort exerted by the individual is seen by a person with a fixed mindset as a sign of weakness. With a growth mindset, ability is seen as capable of development and acknowledgement is made of the role of hard work. This is a highly important factor in relation to this chapter. This suggests that those with a growth mindset appreciate that those who appear to have 'natural' ability still have to work hard to develop their skills and admire the effort afforded. This leads Dweck (2006) to suggest that effort is what ignites ability and evolves it into accomplishment.

Central to the growth mindset is perseverance in the face of adversity: “[t]he passion for stretching yourself and sticking to it, even (or especially) when it's not going well... This is the mindset that allows people to thrive during some of the most challenging times in their lives” (Dweck, 2006:7). Dweck (2006) continues:

[t]he growth mindset does allow people to love what they're doing – and to continue to love it in the face of difficulties...Many growth-minded people didn't even plan to go to the top. They got there as a result of doing what they love. It's ironic: The top is where the fixed-mindset people hunger to be, but it's where many growth-minded people arrive as a by-product of their enthusiasm for what they do...The growth mindset allows people to value what they're doing regardless of the outcome. (Dweck, 2006:48)

This is an interesting point, as it suggests that those with a growth mindset do not necessarily have a definitive goal, they are simply participating in a task for their own satisfaction. This would also infer that the definition of success is highly subjective and is perhaps more about personal success rather than defining success by collective comparisons.

In contrast with those who have a growth mindset, Dweck (2006) believes that those with a fixed mindset are likely to be deterred by challenge or failure. Those with a growth mindset view themselves as catalysts, altering the definition, significance and impact of failure and learning from the experience (Dweck, 2006). These individuals are more open to new ideas and are willing to use criticism constructively to improve their performance. This does not mean to say that they are not deterred by some criticism, but simply have better coping strategies than those with a fixed mindset. Dweck's (2006) work suggests that we all have different, sometimes multiple mindsets depending on the context in which we find ourselves, however these mindsets can be developed and are changeable, relying on the individual to be the agent of change.

In developing her theory, Dweck (2006) acknowledges the research of Sternberg. Sternberg's view of the "alternative 3 Rs" (Sternberg, 2003a) acknowledges interest as a key component of any ability or mindset. Without interest it is unlikely that any development will begin or sustain. Dweck (2006) highlights that, for Sternberg, it is not the ability which is inherent: any skills gained or attributes developed are the result of purposeful and meaningful engagement (Dweck, 2006). This would relate to the ideas of Renzulli (1977) and also Winstanley's (2006) view of "appropriate challenge" which notes that where the learner can see the relevance of the task to their own situation they will be more likely to feel engaged and have a desire to develop their knowledge and skills.

## Conclusion

The discussion of Gagné, Renzulli and Winstanley offered in chapters 3 and 4 has allowed for further exploration and analysis of issues related to the development of talent. While these authors represent three different perspectives on gifted and talented research, there were a number of ‘grey’ areas in relation to concepts within the development of talent which were identified through the critique in these earlier chapters. These were identified as capability, self-efficacy and mindset. Although Gagné, Renzulli and Winstanley may not explicitly create the links and make the connections between their views and these additional concepts, they are implied within their work. Each of the three researchers recognise points which are shared and supplemented by the work of Cairns (1996), Hase (2000), Bandura (1977; 1994) and Dweck (2006). The discussion of these latter authors’ work has helped to develop and refine the ideas of Gagné, Renzulli and Winstanley at another level and elaborate on these underlying concepts.

From all views discussed in Section 1 (the literature analysis) of this thesis thus far, it would appear that it is not the amount of talent or gift which one possesses, but the processes one employs and manages in order to achieve specific goals which are crucial to talent development. The discussions of the three additional areas above point out that there is merit in considering the role of capability, mindset and self-efficacy in the development process. Arguably, there is a degree of overlap and dovetailing between these concepts however the ideas of Cairns (1996), Hase (2000), Bandura (1977; 1994) and Dweck (2006) shed additional light on ability and the underlying features of development.

As a result of the analysis of literature in the general field of gift and talent, and in the area of high ability studies, it would appear that three themes have emerged for consideration in the chapters which relate to musical development. These are:

- influences on development: enhancing (crystallising) and delimiting (paralysing) factors;
- the nature of provision and experience in development;
- training and education.

Each of these will be discussed in greater detail in the next chapter, considering their importance as contexts for musical development.

## 6 Contexts for the development of musical talent

This chapter relates the key issues from general theories of gift and talent (discussed earlier) to the development of musical talent in order to explore how contexts can influence an individual's musical development. Specific issues discussed in this chapter include the identification of musical ability, and examination of contexts for developing musical talent such as the influence of parents and the role of music teachers. The chapter explores these issues by discussing the work of Stollery and McPhee (2002), McPhee et al. (2005), Koopman (2007), Davidson et al. (2000), Howe and Sloboda (1991a; 1991b) and Green (2008a; 2008b; 2010). Central to this chapter is the idea that musical talent can be developed across a number of contexts and is subject to particular conditions or factors which influence this development.

### Identification of musical ability

As discussed in the earlier chapters of this thesis, the terms *gift* and *talent* first arose as part of an attempt to shape society. The earlier chapters presented a general overview of the terms gift, talent and testing, considering the concept of IQ as it appears in general theories of intelligence as opposed to how it might relate to a music-specific context. Therefore it is important to relate the issues raised in the earlier chapters to a music-specific context. This will be done by considering how concepts of giftedness in music have developed.

Developing constructs of musical ability in the UK and Europe have a strong historical connection to the Enlightenment and the Industrial Revolution in the 18<sup>th</sup> and 19<sup>th</sup> centuries (Spruce 2005). During these centuries, the upper classes of society used music in order to promote and enhance their social standing. In addition,

[t]he Industrial Revolution created a new and affluent middle class eager to identify with the established aristocracy, while the aristocracy were keen to retain some of their social dominance...[T]he consumption of 'art music' and particularly concert going became an expression of the emerging pattern of social stratification (Spruce 2005:119).

Spruce argues that music and music making can be considered as “a tool of social stratification” (Spruce 2005:119) characterised by a belief that art music (synonymous with classical music) could only be appreciated, understood and enjoyed by the upper social classes. This does not mean to say that the ‘lower’ classes did not have access to music; it means that there was a distinction between different genres of music and the people who could identify themselves with particular musical forms. Green accentuates the point that classical music has posited superiority over other music genres since this period; a belief has grown that there is a dominant elite musical body which reigns over “a musical mass, which, along with its profane products, is not really very musical” (Green 2008b:17). She considers that the values and beliefs associated with music, music-making and musical ability of the Enlightenment period are still evident in today’s society and school curricula (in terms of content) as well as being evident in the treatment of the three main components of musicianship (listening, composing and performing) and also through the preference for notation (Cloonan 2005; Spruce 2005). Through reference to her own research, Green (2008b; 2010) acknowledges that the school curriculum has incorporated more popular genres and world music into its content, however she argues that the assessment procedures utilised are related to the art-form style which is still dominant – ‘classical’ (Green 2008b; 2010). In addition, the concept of testing for a musical ability is tied to western music as an art form therefore children with experience of other musical traditions (or those with little or no musical experience) may appear to perform poorly in these tests. How musical ability is identified is related to how musical ability is perceived culturally.

Lamont (2009:45) believes that inherent cultural values have also created a stereotype of musicality and who is or can become a musician, stating that the “conventional defining feature of a ‘musician’ centres on instrumental performance skills – whether one can play a musical instrument” as opposed to considering other ways in which someone can become involved in music. This view is also acknowledged by O’Neill (2009) who believes that there is a need to develop the concept of musicianship away from an emphasis on performance-related skills in the classical genre, towards raising awareness of how people engage and participate in music. She believes that societal perceptions of musicianship influence younger learners into categorising people as ‘musicians’ or ‘non-musicians’ (O’Neill 2009). These constructs can influence a young performer’s self-perception which in turn may affect their own view of their musical ability (O’Neill 2009).

The work of Shuter-Dyson and Gabriel (1981) has been used as a means of understanding tests of musical ability and to promote the selection of individuals for musical training. There is concern that the tests discussed in the Shuter-Dyson and Gabriel (1981) text are those which identify individual aspects of musicianship through testing and measurement rather than through considering the musician as a whole person (MacDonald et al. 2009). Contemporary research in the years since Shuter-Dyson and Gabriel published (1981) has suggested that there should be a shift in focus from considering musical ability as a characteristic of the few, to a focus on increasing participation in music for the many (MacDonald et al. 2009). MacDonald et al. (2009) believe that the tests discussed by Shuter-Dyson and Gabriel (1981) treat the process of finding musical ability as a scientific experiment as opposed to an assessment arising from an authentic context. Macdonald et al. (2009: 3) note that there is a degree of “artificiality” in testing approaches, as they create a “laboratory situation” wherein assessments are used which are “unrepresentative of its participant groups” (MacDonald et al., 2009:3). MacDonald et al. (2009) consider that much of the material used in these tests amounted to “experimental stimuli...bearing very little relation to actual musical material” (MacDonald et al. 2009:3).

Although musical testing has been used extensively to identify and measure ability and select individuals for access to development opportunities, Green (2010) is concerned that there is perhaps too great an emphasis on assessment in music, particularly in relation to music education. Assessment “has tended to recognise and reward only certain aspects of musical ability, often in relation to certain styles of music, thus aiding the appearance that only a minority of human beings have musical ability” (Green 2010:210). Green notes this point in relation to extracurricular activities, where selection of participants is usually limited to the musically able and so overlooks the idea that “the vast majority of people are capable of making music to standards that are competent enough to meet the approval and engender the enjoyment of their communities” (Green 2010:210). Instead of limiting access to provision, Green (2010) believes that the purpose of education, whether general or music-specific, is to encourage and develop the child’s learning, promoting a context in which his/her views and interests are appreciated (Green 2008b; 2010). To promote this more inclusive context, “teachers must therefore assume that everyone is potentially musical, not only in order to have any basis for teaching at all, but also precisely to avoid labelling ability with the tags of cultural specification” (Green 2010:249). The emphasis should be on participation, using the child’s interests as well as their prior knowledge and

understanding as a starting point for learning, appreciating that their musical knowledge is the result of access and relationships in different environments (Arostegui 2003). This would reflect the views of contemporary research in the gifted and talented field which emphasises a preference for provision of opportunity first and then testing or assessing (in order to identify learning needs) later (MacDonald et al., 2009; Winstanley 2004; 2006).

While tests and assessments may hold valuable information, they can also promote divisions and reaffirm stereotypes and perceptions of who is ‘musical’ and how musical ability should then be developed. While this thesis acknowledges that tests of musical ability may help to cater for some aspects of the needs of learners much in the same way as general tests of ability were shown to do in the earlier chapters, they cannot be seen as the sole means of providing for musical learning. While assessment can hold benefits for teachers, it should not be used for restrictive purposes (for instance used only for those currently perceived as ‘musically able’) but instead should be used diagnostically and where this assessment is one of several aspects of data gathered on the individual.

### **Contexts for developing musical ability**

This thesis takes the view that musical ability is innate in all humans, but that particular experiences can either promote or delimit this ability. Walters and Gardner (1986) believe that experiences can be ‘crystallising’ for learners, acting as ‘turning points’ for their learning, sparking an intrinsic interest and motivation to learn more. Similar experiences have also been stressed in the work of Pickard and Bailey (2009) in relation to elite dancers, and in the work of Green (2008a; 2008b; 2010), Stollery and McPhee (2002) and McPhee et al. (2005) in music. While there are methodological limitations in the work of Stollery and McPhee (2002) and McPhee et al. (2005), their views on talent development are still valuable. From their own research, Stollery and McPhee (2002) and McPhee et al. (2005) argue that there are particular environmental factors which influence the development of musical ability. The authors term these as ‘crystallising’ and ‘paralysing’ influences. McPhee et al. (2005:108) define crystallising factors as influences “which have...served to enable growth in musical ability”. These are positive experiences which are the result of productive extrinsic experiences and opportunities which spark intrinsic interest for young people. Paralysing factors are defined as “those that militate against the development of musical excellence” (Stollery and McPhee 2002:93).

The views of Stollery and McPhee (2002) and McPhee et al. (2005) suggest that there is a spectrum or continuum of musical talent within which we are all capable of developing musical ability to some degree. If everyone has the potential for musical talent, Stollery and McPhee (2002) argue there must be optimum conditions or ‘conditions for musical excellence’ to realise this ability (Stollery and McPhee 2002). These conditions for musical excellence should build upon and develop the individual’s biological basis for musical ability as they with the environment around them. Stollery and McPhee (2002) and McPhee et al. (2005) clearly state that musical excellence is synonymous with musical intelligence, or “the capacity to engage with and respond to music at a personal level” (Stollery and McPhee 2002:89). In taking this position, Stollery and McPhee (2002) move away from elitist concepts of excellence towards a more inclusive, developmental stance.

Although this thesis does not utilise the terms crystallising or paralysing, a connection can be made to the work of Green (2008a; 2008b) through her research on “celebrating” and “alienating” experiences in music. Green (2008a; 2008b; 2010) believes that in order for musical learning or engagement to occur, the participant must have a degree of connection to the musical experience. She considers that learning music can either celebrate the learner’s musical knowledge and experiences in a way that is affirming to them (Green 2008b), or alienate the learner, whereby musical meaning and understanding are distant from the learner’s knowledge and understanding (Green 2008b), therefore it would appear to Green that there is no neutral ground between the two views. In order for an experience to be a celebratory one, the learner must be able to have a meaningful relationship with the sounds which are being heard or the experience gathered (Green 2008a). She argues that sometimes the musical learning experiences of the classroom are remote from the lives of the students and ignore any prior musical knowledge and skills which the pupil may have. If a learner is able to make a connection to the musical experience it is more likely that they will engage with music and future musical learning (Green 2008b).

From the literature analysis conducted so far, it would appear that opportunities to develop musical ability and raise musical self-efficacy in young people will occur in a number of different contexts. Contributions from peers, teachers, parents, the wider community and specialists are all vital to the development process. Koopman (2007) loosely groups these

learning experiences under two themes: the formal and the informal. Within the formal comes school-based, private and teacher-led music learning, learning which is associated more with the art-form beliefs of the Enlightenment (Spruce 2005) and is structured towards a particular aim or outcome (Folkestad 2006). On the other hand, the informal context is a more social experience, focussing on personal growth and participation in music making through acting upon individual interests and working with others (Koopman 2007). Musicians in the informal context utilise their aural abilities by means of imitation and replication, listening to CDs and audio and interpreting more often than those in formalised environments (Green 2008a). This does not mean to say that elements of informal learning do not occur within the formal environment or vice versa; the descriptions are used in order to differentiate between the processes of learning in the two environments. It is within these contexts that the alienating/delimiting and affirming/enhancing factors are found.

Research literature also indicates the importance of home environment and parental involvement as overarching features in musical development. This is noted in the work of Davidson et al. (2008) and in the work of Stollery and McPhee (2002). For some learners, parental input in the development process is minimal: for example, some parents might allow the child to pursue their own interests, while other parents take a much more active role, ensuring that their child attends music lessons and being present at their child's practice sessions (Sosniak 1985). Some may actually teach their own child or indeed some parents insist on their child learning an instrument when it is not a natural choice for the child. For the purposes of discussion, this thesis will consider parental and home influence as a third context for learning.

### *Parental influence and parental involvement*

Research literature regarding talent development underlines the role of parents as one of the key influences. Subotnik and Olszewski-Kubilius (1997:103) acknowledge the important and "unique" role which families have in terms of talent development, highlighting that parents are the first means of encouraging and recognising musical ability in the child, supporting them financially and emotionally throughout their development. The influence of the home environment can be seen as two-fold, both in terms of values and beliefs regarding music and in terms of resources (Sosniak 1985).

Many children's initial encounters with music are constructed by their parents, with these experiences being shaped by the values and perceptions held by the family towards music. Borthwick and Davidson (2009) refer to their study of family involvement in musical development and conclude that "all immediate family members play a shaping role, both children and adults alike, *irrespective of whether or not they learn musical instruments themselves*" (Borthwick and Davidson 2009:76, original emphasis). Where the family engages openly with musical experiences (for example, listening to music of different genres, or playing an instrument) this may provide a more enriching experience for the child. It could be assumed that the reverse is true, however not all musically talented children come from musically involved backgrounds (Howe and Sloboda 1991a). Davidson et al. (2000) note that many of the parents of musically able children did no more than listen to music at home. Davidson et al. (2000) point out that parental involvement and level of participation developed and increased as their child became more involved in musical pursuits. The home environment does not necessarily have to contain opportunities for musical performance, but rather for musical appreciation.

Musical ability in the adoptive home environment presents an interesting view of the nature-nurture debate, providing more insight into the role of the environment in nurturing musical interest. Davidson and Pitts (2001) are of the opinion that "when music emerges as an interest held by adoptive children...the role of the parents in enabling and supporting the development of that interest is clearly very important" (Davidson and Pitts 2001:162-3). In this study, the children noted the importance of their parents' encouragement of musical interests and hobbies: "[t]he children also see him (dad) as being 'very into his classical music', and in their descriptions of learning musical instruments cite him as a source of encouragement" (Davidson and Pitts 2001:165). The musical context of the home was relaxed, flexible and responsive to the needs and demands of the children's interests (shown, for example, in one child's preference for art and design as opposed to her brothers' involvement in musical pursuits). The role of musical appreciation in the development of musical talent is illustrated through the case of the adoptive family whereby the father had provided the children with a model of musical interest through his own enjoyment of music and his support in taking the children to lessons and providing enriching opportunities and experiences (Davidson and Pitts 2001). Priority was placed upon the provision of a secure and enriching home for the children rather than establishing an overtly pro-music culture. Davidson and Pitts (2001) also note that, even in a musically

rich environment which is conducive to talent development, a child may reject the opportunity to develop musically. This does not mean to say that they have little or no interest in music; they simply have no interest in developing their talent.

Parental engagement in music-making and appreciation could also be seen as having a connection to how the parents perceive musical ability (see Borthwick and Davidson 2009; Schripp and Subotnik 2003; Creech and Hallam 2003). Creech and Hallam (2003) believe that parental involvement is related to the parents' own experiences of musical learning, influenced by the personal learning history of the parent and the relationship which they had with their own teacher (Creech and Hallam 2003). If a parent had a positive musical learning experience, they may be more inclined to become actively involved in the child's musical development (Creech and Hallam 2003). While Creech and Hallam consider there to be a relationship between previous experience and involvement, Schripps and Subotnik (2003) found a connection between levels of parental input and the parent's perception of musical ability, noting there to be three dominant parental attitudes regarding music education and musical ability (Schripps and Subotnik 2003). Firstly, parents who believe that children will not be able to acquire high levels of musical ability if their child does not respond positively to formal music lessons early on in their development. Secondly, parents who consider that those children who respond to music lessons at an early age are 'gifted'. (As Schripps and Subotnik (2003:486) indicate, these parents are "confusing normal musical ability with extraordinary talent"). The third and final parental attitude was that of parents who believe that, with access to music education providing the opportunity to allow their ability to be uncovered, any child may develop musical ability (Schripps and Subotnik 2003).

While the two studies above indicate the role which perception and past experiences play in musical learning for the 'general' musical learner, they do not stipulate whether the families involved were 'musical' or how much music learning the parents had engaged in. Borthwick and Davidson (2009) conducted perception and expectation research with families who consisted of both 'musicians' and 'non-musicians'. The authors found there were three main features in involvement. Firstly, families who had two parents as musicians expected their child to achieve high musically, often to a higher level than they themselves had attained. Secondly, non-musical parents wanted their child to act on their

own missed opportunities from their (the parents') childhoods. Finally, for families where one parent was a musician, the non-musician parent wished the child to acquire the musical status of the musical parent, particularly if the parent was acknowledged in musical communities or where the perceptions of the community towards this music were high (Borthwick and Davidson 2009). The views of Creech and Hallam (2003), Schripps and Subotnik (2003) and Borthwick and Davidson (2009) are interesting as they demonstrate the way in which past experiences can shape perceptions and involvement in future tasks, indeed how these past experience can create expectations.

The influence of the home environment and the family are important in encouraging early interest in music. While the well-resourced home environment can potentially promote talent development, parental expectations, aspirations and involvement in the education process also shapes a child's musical interest and may consequently influence their potential to develop musical talent. However, Kamin et al. (2007) and MacNamara et al. (2006) demonstrate that social aspects of learning have more significance for the non-classical musician than do families. While musical ability may have a degree of influence from the resources, values and relationships found within the home environment, they are only components in the overall learning process. Access to particular events, resources or opportunities outside of the family can all form potential sources of encouragement for talent development (Howe and Sloboda 1991a).

### *Role of teachers, teaching and private tuition*

McPhee et al. (2005) and Stollery and McPhee (2002) believe the role of the teacher to be a significant feature in the development of musical talent. However, while the work of McPhee et al. and Stollery and McPhee consider the teacher within formal teaching contexts, in the course of musical development the student gains knowledge from several people who adopt the role of 'teacher': parents, other family members, peers or additional significant people in both formal (school or private tuition) and informal contexts.

Folkestad (2006) notes that the role of the teacher is present in formal and informal contexts although there may be different teaching foci or relationships with the learner, as well as a different emphasis on how the learning is transmitted in each context. Similarly,

Hallam (2006) considers that how a teacher conceptualises his/her role affects their beliefs about teaching and the way that they teach. In some contexts, the role of the teacher is more clearly defined than others. The role and identity of the teacher within formal contexts for music learning is strongly defined. Teachers within more formal contexts of musical development are usually guided by agreed standards and assessments, and a key element of their role is in helping the child to meet learning targets and to work towards examinations. This teacher usually possesses high levels of training or pedagogical knowledge about teaching and learning. In terms of the formal context, there are two prominent teacher identities that of the pedagogically trained classroom teacher who has knowledge of teaching and learning strategies, and the instrumental instructor, with more specialised technical knowledge of an instrument.

However, in relation to home or informal contexts, the role of ‘teacher’ is less well defined, with social and collaborative processes for learning being of great value to talent development. Murrell (no date) terms teachers in informal settings as ‘community teachers’: members of the culture who are connected with students, families and communities in ways that formal education has yet to reach. This view is shared by Creech (2010:314) who notes the importance of the role of this community teacher or leader. She stresses that this individual, in musical terms, acknowledges and supports “the principles of access to music making for all, equality of opportunity, participation and inclusiveness”, and notes that the workshops and activities with which these individuals are affiliated tend to be social experiences spanning a wide musical context. As a result, these individuals have good ‘insider’ knowledge of the culture and community of learning as well as of the learner him/herself. Regardless of the context, Butler et al. (2007:248) state that “teachers who know their students and know how to develop learning activities that capitalise on their interests and strengths are much more likely to create a positive learning environment”.

### *Teaching and learning in the classroom*

As mentioned earlier, formal musical experiences are those which occur either within a school, classroom or through private lessons. Although elements of informal contexts may appear in the formal environment through group performances, the focus of the formal context is on individual attainment and performance, with learning ‘led’ by a teacher

(Folkestad 2006; Green 2010). As previously discussed, historical values and beliefs have shaped the pedagogies and content of the school curriculum and consequently influenced considerations of who is, or can become, 'musical' (Spruce 2005; Green 2010). Green (2008a; 2008b; 2010) considers that the school music curriculum can appear remote from the lives of the children it aims to reach, promoting the divisions of the musical genres rather than challenging them. Terming this as 'formal learning' Green believes that the emphasis on classical art music in the curriculum overlooks the contributions which other music traditions or more 'informal' opportunities can have within the classroom (Green 2008a). Schools and the curriculum can be seen as potentially alienating children from musical learning. Similarly, Butler et al. (2007) highlight that particular decisions are made in creating a curriculum regarding content and a focus on pupil achievement, and that these decisions may exclude certain populations of pupils: some children may be alienated from the experience.

In terms of curricular content, Swanwick (1988) states that a limited or narrow curriculum gives little room for personal exploration by pupils and, as a result, loss of flexibility and spontaneity in learning occurs. He believes that by increasing the breadth of options the child is more likely to find something which appeals to them musically or which they can relate to (Swanwick 1988). While Swanwick's views of broadening a child's musical knowledge through expanding the content of the music curriculum are valid, there is a danger of this being tokenistic in nature (Butler et al., 2007). While the school music curriculum has grown in recent years to accommodate new musical genres and technologies, each genre has with it its own particular nuances in terms of teaching and assessment (Green 2008b; 2010). However, the real meaning behind these different genres and styles can be lost because of the genre being reconstructed in order to meet examination structures which are more suitable for classical art forms (Green 2008b; 2010). For example, in terms of performance, Cloonan (2005) acknowledges that assessment of non-notation focussed genres proves difficult caused by the reliance on notation and assessment of notated performances. Within non-classical genres, the sounds produced are more important than the notes on the page (Cloonan 2005). Green (2010) believes that effective examination of a learner's success in a non-classical genre would require an overhaul of both assessment procedures and teaching methods.

### *Extracurricular activities*

A great deal of musical learning also occurs in school instrumental provision and extracurricular activities. These forms of learning allow for greater experimentation and freedom for performance and understanding of music than may be found in the classroom. The students who participate in these activities are more likely to be interested in music and have the drive to learn (as participation usually comes with commitment of their own time). Hallam (2010a) appreciates the many benefits associated with extracurricular activities, believing that these opportunities can boost not only the learner's musical skills but also their social skills and learner autonomy. However, spaces for children to participate in extracurricular activities in school are limited, and selection for participation often relies on tests and assessment of ability.

In terms of school instrumental provision, Mills (2007) recognises that instrumental tuition allows for fuller exploration of music than takes place in the classroom, therefore this affords the learner a greater opportunity to gain an understanding of musical meaning and, ideally, to gain enjoyment from performing (Mills 2007). However, Mills believes that there is no reason why classroom and instrumental instruction cannot be used together in the best interests of the pupil, for example in exam preparation or class group performances. In some respects, the integration of the two teaching approaches can be difficult, largely related to teacher attitude (self-identity) or time availability (Mills 2007). However, Mills believes there to be merit in viewing musical development as a partnership of multiple sources which can add a further dimension to the learning experiences of all pupils.

### *Private tuition*

Howe and Sloboda (1991b) note that private tutelage from (at least) two teachers is a common feature for music students. Private music lessons tend to take place on a one-to-one basis, with the teachers possessing the specialised knowledge required for refining the individual's musical development. Philpott (2005) is concerned that, in paying for additional tuition, access may be limited to a financial elite. However, even with "pay and play" lessons (Philpott 2005) a degree of motivation, commitment and "teachability" in the pupil is necessary (Subotnik and Jarvin 2005:345), since without these attributes it is

unlikely that the talent will develop. With respect to very young learners, characteristic traits of warmth and care are important from private music teachers (Howe and Sloboda 1991b): the more accommodating and supportive the teacher is, the likelier it will be that progress ensues (Gembris and Davidson 2002). However, as the level of ability and demands of challenge increase, there is a need for the teacher to provide constructive feedback and support for technical refinement. Consequently, the guidance of an expert teacher who understands the nuances and level of technical demands of an instrument is necessary. Without “opportunities to learn from skilled instructors, such abilities (musical gift to talent) may develop too slowly or even counterproductively” (Subotnik and Jarvin 2005:344).

The relationship between private music teacher and pupil affords a more specialised level of technical conditioning and development of expression than does a more general classroom environment/relationship (Kemp and Mills 2002). Kemp and Mills (2002) therefore recognise the importance in the role of the private tutor, noting that teachers who have an understanding of their pupils’ needs and a good knowledge of their own specialism are likely to be “sensitive and imaginative” teachers who will modify their teaching approaches according to the needs of the individual child (Kemp and Mills 2002:12). In terms of lesson content, Subotnik (2004) highlights the specialist instructor’s wide knowledge of repertoire and detailed understanding of their instrument(s). This specialist knowledge allows them to understand and respond to their students’ strengths and weaknesses, using appropriate strategies and challenges to develop skills and overcome weaknesses (Subotnik 2004).

### *Informal, peer and community influences*

Research on ‘informal’ musical learning has been undertaken by Folkestad (2006), Koopman (2007), Lacaille et al. (2007) and Kamin et al. (2007) among others. Within the informal context, these studies identify three central themes which distinguish the formal from the informal learning context:

- 1 musical experiences are shaped to the interests and needs of the group;
- 2 emphasis is placed on sharing experiences of the people and promoting social cohesion;
- 3 personal growth.

In order to achieve these three central ideas, a degree of flexibility is required, therefore the structures of the classroom and constraints of the curriculum may be unsuitable for those who wish to pursue activities associated with popular music. This view is supported by Folkestad (2006) and Lacaille et al. (2007) who both note that the more ‘informal’ context allows for a different type of relationship for those involved, including increasing the amount of agency the learner has (Folkestad 2006). Folkestad (2006) points out that through having less structure than the learning of the formal classroom or private lesson the individual gains more control over their learning: the learning follows a more personalised, or self-selected, development plan. This is what Lacaille et al. (2007) consider as opportunities for developing and attaining intrinsic goals. This does not mean to say that self-directed learning does not exist in formal structures, it suggests that the learning in the classroom or private lesson is more about working towards an objective aim rather than a self-initiated target. Kamin et al. (2007:449) note that the development of the non-classical musician “whose musical education is often acquired in an unstructured, non-systematic manner” is largely overlooked within formal music education. The majority of classical music development takes place within a structured and formal learning environment. However, for some genres, more social opportunities to learn are important (Kamin et al., 2007).

## **Conclusion**

It would appear that the development of musical talent is shaped by a combination of home, formal and informal contextual factors. As noted earlier, musical experiences can either celebrate and enhance, or alienate and delimit, the development of an individual’s musical talent. While opportunity and access to appropriate materials or people may be provided, it is the way in which the individual perceives him/herself in relation to such experiences and contexts that affects the development process. While musical potential is nurtured within enhancing conditions, it is how the learner interacts and responds to the experience which shapes the nature and level of the skill development.

This chapter has looked at three of the most important contexts which influence how musical ability is viewed and which can shape an individual's perceptions of his/her own ability. Three points were of greatest interest from the literature. Firstly, the construct of musicianship and ability is shaped by personal experiences, family history, social standing and our relationship to the music itself (if music alienates or celebrates our identity). These experiences tell us if musical talent is attainable and by whom. Secondly, the role of the teacher is important within each context. Finally, social processes of learning are valuable in supporting learners. While classroom music may alienate or delimit the experience, increasing the accessibility of music could help more people to embrace their own musicianship and share this with others.

These points will be discussed in greater depth in the empirical section of this thesis. At this stage, it is necessary to look closely at methodology in chapter 7 in order to understand how the data collection was constructed in order to address the research questions.

## **Section 2**

### **Methodology and empirical data analysis**

## 7 Methodology

The primary intention of this research study was to address the following research questions:

- 1 How is gift and talent conceptualised:
  - a. generally in research literature?
  - b. by musicians, performers and teachers?
- 2 How is musical gift/talent identified?
- 3 How is musical ability nurtured?

To answer these questions, the data collection process was arranged under five headings to address the research questions:

- literature analysis;
- empirical Strand 1 (semi-structured interviews and questionnaire responses from musicians);
- empirical Strand 2 (institution and school-based data from programme leaders/coordinators and teachers);
- empirical Data Strand 3 (Conservatoire and University students);
- empirical Data Strand 4 (a case study with pupils from a National Centre of Excellence (NCE)).

Several methodological issues arose during the course of this study relating to the identification of the research questions and aims, the data collection instruments and analysis of the findings. The key issues were as follows: the need to refine an appropriate qualitative methodology; the development of appropriate data collection methods; clarifying the rights of access to participants; and interrogating claims of truth and validity during and following data analysis. This chapter focuses on the research methods used for the empirical data collection and will discuss these issues to illustrate the way in which

they have shaped this particular research and how these may impact on the research process as a whole.

### **Refining an appropriate qualitative methodology**

Qualitative methodologies offer the opportunity to explore certain personal experiences within a given context (Flick 1998; Gall et al. 2007). Cohen et al. (2011) deem that the choice of methodological approach should relate to fitness for purpose: in other words, the decision about the chosen method for research should be the one which best achieves the research aims. In answering the research questions for this thesis, the focus of the empirical strands is an investigation of participants' perceptions of gift and talent, as well as exploring their experiences of talent development. Perceptual and experiential concepts are difficult to measure or assess, but by taking a qualitative approach to gathering data from participants, exploration of perception and experience is possible. Qualitative approaches (such as questionnaire and semi-structured interviews) are recognised methodological approaches frequently used in the social sciences to investigate perceptions, and have been used in musical perception research by MacNamara et al. (2006; 2008). The data collection and analysis of the study could have aligned with a quantitative research paradigm if questionnaires had been designed using a rating scale (such as a Likert scale) to gauge participants' perceptions (see Cohen and Manion, 1982:325). However, rating scales are "limited in their usefulness... by their fixity of response caused by the need to select from a given choice" (Cohen and Manion 1982:328). Using a checklist or a questionnaire based on Likert scales for data collection would present limited scope for the participants' contributions. Using open questions was considered to be more appropriate for gathering data to answer the research questions because they provide the opportunity for respondents to answer in their own words, and in a way which allows them to explore their perceptions and experiences in depth (Cohen and Manion 1982:130).

In addition, analysis of quantitative research relies predominantly on statistics. However, as noted by Cohen et al. (2011:604), "most concepts in education...are simply not reducible to numerical analysis". Quantitative methodology attempts to objectively focus on identifiable components rather than taking a subjective, holistic overview, or a descriptive text interpretation (Ruane 2005). Quantitative methodologies are therefore of interest to those testing a research hypothesis in a scientific, experimental approach – to

what extent will X impact on Y? Although qualitative research also tests hypotheses and theories, the qualitative methodological approach is synonymous with interpretive research (Gall et al. 2007). Qualitative methodology can be seen as searching for meaning (Roulston 2006). As such, in respect of the aims of this thesis, qualitative methodology is most appropriate in order to gain understanding of the participants' personal conceptualisations of musical gift and talent, and to allow implicit theories to arise

### **Developing appropriate data collection methods**

Qualitative data can be collected in several ways and can be seen as an intertwining of literature, theory and 'real-life' experiences (Flick 1998). Flick et al. (2004:3) acknowledge that qualitative research presents "life worlds 'from inside out', from the point of view of the people who participate". In this way it can contribute to a better understanding of social realities, drawing attention to processes, meaning patterns and structural features" of social conventions, beliefs and interactions. Within educational research, Gall et al. (2007) point out that questionnaires and the interviews are used commonly a means of collecting "data about phenomena that are not directly observable: inner experience, opinions, values, interests, and the like" (Gall et al. 2007:228). Questionnaires can either be stand-alone or complementary components of research strands. Bell (2004) is of the opinion that the interview and the questionnaire are similar in that there is a need for knowledge of both the topic and possible participants before question construction:

Care has to be taken in selecting question type, in question-writing, in the design, piloting, distribution and return of questionnaires. Thought must be given to how responses will be analysed at the design stage, not after all the questionnaires have been returned. (Bell 2004:118-119)

An important feature of empirical data collection is the piloting of the research instruments. Gall et al. (2007) consider that conducting a pilot study is one of the five major stages of research, allowing the researcher to develop and alter methodologies to avoid difficulties when the study becomes 'live'. As with MacNamara et al.'s (2008) paper, the pilot participants for this thesis were chosen at random from a similar population to the prospective participants. This simple random sampling technique utilised a list of student matriculation numbers (selecting every fifth student for participation). The pilot

study participants were asked to focus specifically on clarity of the questions and the on-line interview layout, The comments received from the pilot study participants were used to refine both the research instruments. The piloting process was also useful for practising interview techniques, assisting the development of researcher questioning and probing skills.

Numerous approaches to data analysis can be undertaken in the qualitative paradigm, for example thematic coding or qualitative content analysis (Flick 1998). Because of the number of potential information sources available to the qualitative researcher Flick (1998) deems qualitative analysis as process of synthesis, that is summarising and selecting data to obtain relevant material which will best answer the research question(s). This view is shared with respect to music research by both MacNamara et al. (2008) and Pickard and Bailey (2009) who both emphasise the strength of qualitative research in allowing for exploration of participants' thoughts. Cohen and Manion (1980) discuss this in relation to semi-structured interviews and other methods which involve the views of individuals, such as the questionnaire: "[s]uccessful handling of individual accounts therefore requires the researcher to know the interview content extremely well and to work toward the gradual emergence of tentative interpretive schemata" (Cohen & Manion 1980:194).

Powney and Watts (1987) note that interview transcription can appear "disorganised" in that the respondents may not have clear ideas or that the talk is "discontinuous" (Powney & Watts 1987:147) this can make the task of transcription (and consequent analysis) difficult. The authors state that the role of the transcriber is "to provide a record as accurate as possible of the discourse" (Powney & Watts 1987:146). Flick (1998) indicates that there are many approaches to transcribing (for example, brief notes or full text transcriptions) with the method employed dictated by the research question or the researcher intentions. Regardless of difficulties, there are benefits to a full and detailed transcription as this provides a representation of reality "in two respects: as a process which opens access to a field and, as a result of this process, as a reconstruction of the reality which has been textualized" (Flick 1998:176). The multi-method approach to data collection (from literature, semi-structured interviews, questionnaires and focus group and pre-group questionnaires) used in this research allowed for triangulation. The approach used allowed for testing of prior theories while providing an opportunity to "explain more fully, the

richness and complexity of human behaviour by studying it from more than one standpoint” (Cohen & Manion 1980:208). Cohen and Manion (1980) describe triangulation as the need to ensure validity and reliability of information. However, Flick (1998) notes that while triangulation “was first conceptualized as a strategy for validating results obtained with the individual methods” the focus in recent years “has shifted increasingly towards further enriching and completing knowledge and towards transgressing the (always) limited epistemological potentials of the individual method” (Flick 1998:230). The use of triangulation in this thesis enabled the findings from the music teachers and instructors (at mainstream, specialist and Conservatoire level) to be compared with one another before being triangulated further with the data from current music students and established musicians and composers.

### **Claims to truth and validity**

It is unrealistic to assume that research is a neutral territory given that all humans have their own opinions on subject matter. However, the risk of bias requires careful consideration throughout the research process to lessen the potential effects of bias on the findings. Final research findings cannot be claimed as *sine die* truth. The researcher acts as interpreter of the data, and as such, is required to analyse the information critically in order to determine cause and assess the degree of validity. Ruane (2005) notes that research can never declare complete truth, stressing that even quantitative and scientific research must be treated with “a healthy dose of scepticism. We should not blindly trust any claim to knowledge or truth but instead be ready to assess the accuracy or validity of *all* claims” (Ruane 2005:33). The gauging of validity itself is a multifarious process, with varying stages and approaches to assess reliability of the research findings. Flick (1998) notes that a basic problem of validity in qualitative research arises because the researcher’s interpretation and analysis of the data rests on the data collection methods and on how the links between the study and the research questions are established. Similarly, the researcher is relying on the participants to relay an accurate interpretation of the situation; therefore there is an element of trust given to the participant to provide an accurate account of their experience.

In relation to this thesis, the research was designed to gather and analyse the views of musicians and pupils with regard to their understandings of musical gift and talent development based on their own experiences. The research took a retrospective approach, where participants were asked to discuss their talent development from childhood to adulthood; therefore there are issues of potential self-report bias and reliability of memory (see MacNamara and Collins 2008:379). Pickard and Bailey (2009) also acknowledge that research with children can be problematic in terms of validity, as they may not have an accurate interpretation of their current situation. It was important to approach the analysis of the case study with this in mind and to analyse carefully the ways in which concepts were expressed. The responses were grouped firstly by genre, before being subdivided by method of participation (electronic or face-to-face). The data gathered from the musician responses was scanned for key words and recurring themes. These terms were used for cross-checking against the responses from the programme leaders/course co-ordinators, with overlapping terms highlighted on the spreadsheet. Because of the small number of responses and the richness of the qualitative data, it may have been difficult to use statistical formulas to determine if there were any particular significances for the groups.

It is during the validation process that the researcher is required to acknowledge contamination or flaws in the research. Contamination of research was previously discussed in relation to the semi-structured interview, however faults can occur at any stage of the research process, not purely within the data collection or analysis. For Ruane (2005), contamination can be of two forms: noise and bias. Noise is deemed to be small, random errors introduced to the research by both the researcher and participant(s): for example, through tiredness, lack of attention or poorly constructed data instruments. Ruane (2005) suggests that a degree of noise within the research process is inevitable. However, care should still be taken to eliminate as many potential sources of noise as possible, predicting and anticipating these sources in an attempt to ensure validity and reliability within the research process. Whereas a researcher can be alert to noise within the data collection, bias is more significant to the reliability and validity of research. As with noise, bias can encroach upon the research in key ways: from the researcher via construction of the research aims or the data collection instruments or indeed through the participant(s). Ruane (2005) notes that ambiguous questions in the research instrument may promote ambiguous answers, leading the researcher to misinterpret the response, or leading the participant to respond with the answer they believe the researcher wants to hear as opposed

to fully (or truthfully) answering the question. This research has attempted to address this issue in two ways, firstly by piloting the questionnaire and interview questions and responding to the feedback gained from this experience, and secondly in carefully judging each response in relation to how it addresses the research question.

### **Empirical data collection strands**

The process of literature analysis in the earlier chapter contextualised the empirical data collection in this thesis. Overall, three methods were used in order to gather field data: face to face interviews, electronic questionnaires and a focus group. For ease of discussion, the empirical data collection was divided into four strands (see Introduction, figure x.1). All interviews were transcribed verbatim, while all questionnaires from the respondents (musicians, the teaching staff and Conservatoire/University students) were retained in their original format with the original spelling, punctuation and grammar so as not to lose the essence of the participants' views. Again, as noted by MacNamara et al. (2006; 2008) this approach is commonly utilised in qualitative inductive research (in general, and with respect to music research).

#### *Empirical Strands 1, 2 and 3: Semi-structured expert interviews, skilled interview technique and questionnaires*

Cohen and Manion (1980) deem the interview to be a powerful tool which can meet qualitative aims to test current hypotheses and/or create new information. Interviews can be utilised in numerous forms for a variety of purposes and are useful to interpret a situation through the perspective of the participant. Powney and Watts note that interviewing is:

a tool to find out about people. The narrowest scope is in the highly structured interview to identify people's attitudes towards specific items. At the other extreme, interviewing contributes towards data collected from a number of different sources in an attempt to describe a culture. 'Culture' in this sense is the acquired knowledge that people use to interpret their experience and generate social behaviour. (Powney & Watts 1987:13)

In terms of interviewing, there were two important considerations in respect to this thesis: firstly, in recognising the need for good interview skills from the researcher in order to encourage the interviewee to contribute information; secondly, because the participants in this research regard music as a culture and their own personal interactions and perceptions within this culture form a significant aspect of this study. The semi-structured interview seemed the best way of understanding the interviewees' perceptions of gift and talent and of potential (musical) culture that may be important to talent development. Using semi-structured interviews means that "the interviewed subjects' viewpoints are more likely to be expressed in a relatively open structured interview situation than in a standardized interview or questionnaire" (Flick 1998:16). The interview constructed for the musicians in this study aimed to give participants scope to identify for themselves which key aspect(s) in gift and talent they perceive to be important and to develop their answers more fully than would be possible in a questionnaire. Where there is a potentially large number of participants it is unrealistic to attempt to examine and discuss the views of each member of the given wider population, therefore a small representative sample was identified. Cohen and Manion (1980) and Flick (1998) acknowledge that in order for the researcher to identify a sample, she must first be able to understand the wider population. To do this, expert interviews are useful. Experts are advantageous in numerous ways, for example, in their knowledge of a subject, which means they have privileged information regarding specific groups and/or processes (van Audenhove 2007). As there are no wholly empirical means of stating what gift and talent is, the sample of experts for this research was subjective, relying on the judgement of the researcher in relation to the research questions. It is difficult to make a judgement without inflicting a degree of bias, therefore criteria for selection must be robust to ensure that the sampling provides the information to answer the research questions.

As with any other form of interview, semi-structured methods also have difficulties, largely related to interviewer behaviour. Flick (1998) and Powney and Watts (1987) emphasise the key role of the interviewer's own perceptions and interest in the topic. Bias or "personal perspective" (Powney & Watts 1987:35) within this method of data collection has been widely acknowledged as inevitable during the interview process (Cohen & Manion 1980). This 'personal perspective' will tend to encroach on the interview through both the researcher and the participant who themselves will contribute their own values to the process through various forms either consciously or subconsciously (Cohen & Manion

1980). These can be as background characteristics (sex, age, ethnicity), or psychological aspects (perceptions, attitudes) and behaviours (relating to the conduct of the interview, method of recording or note taking) (Powney & Watts 1987). Although Powney and Watts (1987) note these forms of influence in relation to researcher bias these factors will also influence the interviewees, their reaction to the interviewer and their response to the questions.

### *Questionnaires*

While the semi-structured interview is considered an appropriate form of data collection with a small group of participants, the second method of obtaining information from a larger population is achievable through a questionnaire. A questionnaire was the intended method of contribution for the students, however it also became available to the successful musicians in order to accommodate their personal commitments where a face to face interview was not possible. Whereas the interview allows for the researcher to prompt, clarify and participate in dialogue with the interviewee, the questionnaire is more participant-led (Gall et al. 2007). The researcher – in accordance with their research aims – must decide on the amount of freedom she wishes the participant to have (Ruane 2005). This degree of freedom rests upon a combination of closed- and open-ended questions. Closed-questions offer the participant a fixed response with alternatives and they are therefore easier for participant to answer and for the researcher to analyse (Ruane 2005). Open-ended questions present the opportunity for an extended comment (Bell 2004).

Ruane (2005) notes that a poorly worded question can produce generalisation of group responses or produce obscure or irrelevant data. She does emphasise, however, that response rates for closed-question instruments are higher when compared against the open-ended questionnaire. Although the open-ended questionnaires allows for more freedom for the participant to have their own unique response to the question, it also has disadvantages:

[g]iving respondents total freedom to supply their own answers means that the researcher will have to work harder at coding responses...Open-ended questions are also 'harder' for respondents to complete. Open-ended questions require respondents to work harder in the sense that they have to 'write' something in order to provide an answer. (Ruane 2005:132)

As mentioned previously, personal interviews were not always possible. This was the case with a large proportion of the successful musicians who could not afford time to meet because of recording and concert commitments. As the semi-structured interview had been digitised for the access conditions at the Conservatoire, the electronic instrument was made available as an alternative means of participation for the musicians.

The questionnaire for the students and the pupils was structured to uncover information on their developmental experiences to date, asking the students and pupils to comment on any particular events or people who they believed to be significant in their learning. All participants in each of the empirical strands (apart from the National Centre of Excellence (NCE) pupils) had the option of retaining their identity for the direct quotations. However, the pupil responses were completely anonymised as they were all under the age of 18. All participants – in both interviews and questionnaires – were asked to omit any question which they considered to be unsuitable or inappropriate.

#### *Empirical Strand 4: Case study and focus group*

In order to achieve in-depth understanding, a case study of one NCE (specialist music school) was carried out. It should be noted from the outset that this case study represents a specialised musical learning environment and the opportunities and experiences on offer may not be similar to those within mainstream schools. However, while the case study cannot make generalisations or be used as a comparator to mainstream provision, case studies are useful tools for qualitative research, allowing researchers to gain an insight into the routines of their participants. A case study allows for the opportunity to “probe deeply and to analyse intensively the multifarious phenomena that constitute the life cycle of...[a] unit with a view to establishing generalisations about the wider population to which that unit belongs” (Cohen & Manion 1980:99). The case study is a window into the experiences of the participants within a particular situation or set of phenomena and acts as a description, explanation or evaluation of the phenomena (Gall et al. 2007). The data for this case study was gathered through a small focus group with senior school pupils (S4-S6) at the NCE school.

Focus groups are frequently used in qualitative research, either as a standalone or as part of a multi-method means of data collection (Kidd & Parshall 2000; Wilson 1997). The process for data collecting through a focus group differs in that participants do not respond as they would on a questionnaire or in a one-to-one situation. Instead there is opportunity for commentary, concurrence, and discourse of responses (Kidd & Parshall 2000). This element of group interaction is an important feature of focus group interviews and can aid the researcher in establishing a non-threatening environment to help solicit responses - something that Kitzinger deems as a strong advantage:

[e]veryday forms of communication may tell us as much, if not more, about what people know or experience. In this sense focus groups reach the parts that other methods cannot reach, revealing dimensions of understanding that often remain untapped by more conventional data collection techniques. (Kitzinger 1995:299-300)

From a qualitative research perspective, group interaction adds a further richness to the data gathered:

[f]ocus group members comment on each other's point of view, often challenging each other's motives and actions in a pointed fashion...During a session, focus group members may modify their opinions, or at least their statements about them, based on the give and take of discussion as the group progresses...(Kidd & Parshall 2000:294).

The potential for group dynamics or peer pressure to lead to altered views is an important aspect which needs to be borne in mind. The role of the researcher is also important in the focus group. Wilson (1997:214) believes there to be two approaches: a "minimalist role", whereby after an initial briefing from the researcher the participants continue with their focussed discussion; and "collective remembering" where the role of the researcher is to guide and facilitate the discussion. In the case of this research, because of the age of the participant group (S4-S6 school pupils) a more interactive and facilitating role, (similar to that of "collective remembering") was utilised.

Although promoting group discussion and a platform for discussing shared experiences, focus groups have a few disadvantages, largely related to privacy. Whilst these group forums can encourage sensitive issues to arise, some participants may feel uncomfortable discussing such issues in any depth because of the group dynamics and since confidentiality is difficult (or impossible) (Kitzinger 1995). Wilson (1997) points out what she terms as ‘public’ and ‘private’ voices, with participants almost having two separate views, a public front (which is seen in the focus group setting) which may be distinct from their private, personal thoughts (although these may be tapped through a one-to-one interview or questionnaire). In either case, she notes that this is where the use of the focus group as part of a multi-method approach is useful. Through using a pre- or post-group questionnaire or follow-up interview, the researcher can address participants’ public and private personas whilst maintaining the rich level of data collection. Whilst both Wilson (1997) and Kitzinger’s (1995) work relate to medical and ethically sensitive research, the underlying principles are still relevant to this study. The participants of the focus group for this research are young adolescents who may be more reserved at sharing an opinion with their peers or with a guest researcher. In addition, the young people may be more easily ‘led’ in their responses, for example giving answers they think the researcher wants to hear. This is similar to the issues related to semi-structured interview techniques discussed earlier in this chapter, whereby the researcher must attempt to make the participant(s) feel comfortable about contributing and be sensitive to their needs.

After gathering the empirical data, the information was first collated on a spreadsheet and analysed line by line. Key terms (and their synonyms) were grouped and used as codes and which would be used across the responses of the five stages to determine if any patterns emerged. There was a degree of sensitivity required with the data, more so the data generated at the on-site focus group. This was a result of the participants using vernacular or ‘music speak’ terms. This coding process is a similar method to that used by MacNamara et al. (2006; 2008) whereby the researcher gathers all data and begins a process of comparing and contrasting the views to generate a list of higher-order themes. This method of analysis is termed by Thomas (2006) as a general inductive analysis technique. He describes the inductive data technique as having three main purposes allowing the researcher to

condense raw textual data into a brief, summary format;...establish clear links between the evaluation or research objectives and the summary findings derived from the raw data; ... [and] develop a framework of the underlying structure of experiences or processes that are evident in the raw data. (Thomas 2006:237)

The general inductive technique provides a useful means of understanding evaluative and narrative responses to questions (Thomas 2006). Thomas (2006) notes that a five-step procedure is used to prepare the data into a workable format in order to analyse the gathered information:

- 1 Preparation of raw data files, or data cleaning. Gathering and formatting the raw data in presentation to ensure that it is legible and ready for analysis.
- 2 Close reading of text: reading of the text and responses until familiarity is gained.
- 3 Creation of categories: identification of categories and themes using coding from common features and phrases which arise from the data.
- 4 Overlapping coding and uncoded text: making selective decisions on responses, looking at the data closely in relation to the coding and understanding where this information lies with the themes.
- 5 Continuing revision and refinement of category system: searching for additional subtopics and themes, selection of quotations and important points of interest to research question. (Thomas 2006:241-242).

The method of qualitative analysis used with the case study follows these themes to allow for in-depth investigation of the participants' views and greater understanding of their responses.

### **Ethical protocol and rights of access**

Establishing contact and gaining access to participants may hold numerous complications. The British Educational Research Association (BERA) guidelines, *Revised Ethical Guidelines for Educational Research* (2004), stipulate that there are particular aspects of ethical protocol regarding research which cover the stakeholders involved in the research process (including the researcher, the participant(s) and the research data itself). BERA

believes that within any form of research, regardless of size, the researcher has particular responsibilities to the participant(s) and wider research community in ensuring that the study is ethically sound. When designing a research brief, particular aspects should be taken into consideration. These are:

- The Person
- Knowledge
- Democratic Values
- The Quality of Educational Research
- Academic Freedom (BERA, 2004).

BERA (2004:3) states that these five elements should be central in the consideration of any form of research to help the researcher “reach an ethically acceptable position in which their actions are considered justifiable and sound”. Similarly, the Scottish Educational Research Association (SERA) states that such ethical rigour and guidance is not to detract from the study, but instead is in place to enhance “the quality of educational research in the widest sense” (SERA 2005:1). The SERA guidelines remind educational researchers of the impact of their studies, encouraging them to “be aware of the potential influence of a power differential inherent in their relationship with research participants and that they must at all times strive to protect and safeguard the interests of participants in research”. In turn, researchers should promote and “maintain the integrity of their research, of the research community, and of all those with whom they have professional relations” (SERA 2005:3).

In addition to considering the research guidelines of both BERA and SERA, the empirical data collection for this thesis required the authorisation of two research bodies: the Scottish Conservatoire’s Research Degrees Committee and the University of Glasgow, Faculty of Education Ethics Committee, with additional vetting required from Heads of Department in the other institutions. In relation to this research, permission was also required from the Local Authorities (LAs) and Head Teachers of the schools to send the questionnaire to their music staff. Gall et al. (2007) note that the role of any research committee or

authoritative body is to undertake a risk-benefit analysis to assess if the research is ethical in aims, conduct and practice. There is an attempt to weigh

the balance between how much risk the participants will be exposed to and how much good is likely to result from the study. Risk to participants might be physical, psychological, or legal. Benefits can be considered in terms of how helpful the study is to participants to some other group (e.g., the population to which the results will be generalized), or to the advancement of research knowledge. (Gall et al. 2007:80)

While these types of ethical research processes are important, it is also important for a bond of trust to be present between the researcher and the institution (Flick 1998). Similarly, a bond of trust and understanding needs to be established between researcher and participants, therefore there is a need for clarity of communication about the research as well as for informed consent to be gained from participants. This bond of trust helps the participants to feel at ease and will help to establish an ethos where they may feel more inclined to contribute.

It is the duty of the researcher to inform participants about the research, ensuring that each participant is comfortable with the interview situation, is aware of their role within the interview and the wider research process, and is provided with the opportunity withdraw participation at any time (Powney & Watts 1987). Ruane (2005) deems this awareness and consensus as informed consent which relates to

the right of the individuals to determine for themselves whether or not they want to be part of a research project. More specifically, informed consent refers to the right of research participants to be fully informed about all aspects of a research project that might influence their decision to participate. (Ruane 2005:19)

In the event a participant is uncomfortable, their needs or concerns should be addressed in an appropriate manner - for example, agreeing to refer to them by pseudonym, allowing the option of not having their interview recorded, or indeed not be involved in the research. Likewise, at the beginning of the research interview it should be made clear to the participant that although the study may intend to maintain interviewee anonymity, it cannot

fully guarantee this (Powney & Watts 1987). The successful musicians in this study had the option to remain anonymous in the research. In addition, for the NCE case study participants, the children were under 18-years-old and in the interests of child and data protection the pupil participants remained anonymous. In relation to the musicians, it was difficult to keep the data entirely anonymous because of the profile which they hold in the music industry therefore it may be possible to work out their identities through nuances in their responses. During the discussion of the professional musicians in chapter 8, any direct reference to their talent development was by pseudonym. This point was raised during the invitation process as it was felt that this offered more protection for the musicians in their comments and additional freedom to respond in their answers.

The process of accommodating and addressing the concerns of the Conservatoire demonstrate that research is indeed a partnership (Flick 1998). In order to ensure a productive, ethical and trusting research partnership, potential forfeits may be unavoidable. The Conservatoire did not wish for personal or electronic contact to be made directly to individual members of staff or students, preferring blanket electronic invitations to all staff and students. The institution requested that the data collection instruments be administered as electronic questionnaires to both staff and students, with no semi-structured interviews with members of staff, (these issues will be discussed more in chapters 9 and 10). The use of technology in educational research is now commonplace, enabling researchers to collect, send, communicate or store information efficiently and at relatively low cost (Flick 1998; Ruane 2005). Gall et al. (2007) also note that web based questionnaires hold many additional advantages to paper surveys, largely in layout and analysis of data. The semi-structured interview schedule was digitised into an electronic questionnaire using the feedback questionnaire on the Virtual Learning Environment (Moodle). The semi-structured interview intended for musicians and composers was also converted into an open-ended questionnaire (see Appendix 1.1). The questionnaires used for the Teachers/Instructors, Programme Leaders/Course Co-ordinators, Students and NCE pupils can be found in Appendices 1.2, 1.3, 1.4 and 1.5A respectively. Questions were sent electronically to musicians, agents and Head Teachers for review before deciding to participate. As will be discussed in chapters 9 and 11, school-based data required permission from both Director of Education for the Local Authority and the Head Teacher at the respective schools. Each Director was contacted by formal letter and via email with the formal letter attached as a word document. In the Centre of Excellence case study, the

Head Teacher was made aware that, even with pseudonyms, the school may still be recognisable because of the location and nature of the music specialism offered.

Although it could be argued that conducting the research entirely through electronic means, at the request of the Conservatoire, might obscure the overall findings, electronic participation is a time and cost efficient method to reach a large population. Meno (2006) is of the opinion that there is a misconception that electronic participation amounts reduces the quality of information. Meno argues instead that such forms of participation may enhance the richness of response, stating that

the quality of responses gained through online research is much the same as responses produced by more traditional methods. The same conclusion was reached in several studies that compared, or conducted, both email and face-to-face interviews...These studies found that participants interviewed via email remained more focussed on the interview questions and provided more reflectively dense accounts than their face-to-face counterparts. (Meno 2006:1291)

A similar view has also been highlighted by James (2007) who comments that an email interview or questionnaire allows the participant to critically self-reflect upon their responses and their own identity (in this case as a musician or composer). These notions of critical reflection and identity are an important feature of this thesis as the research seeks to understand the way(s) in which musicians and music pupils construct their views about the nature of gift and talent. Providing the participants more opportunity to reflect upon the research questions visually, as opposed to aurally, may enhance the quality of the findings.

Several issues can be seen as central to all research studies and can be grouped within two broad categories: ethical procedures and partnership. Inviting individuals to participate in a study when they are affiliated (in some capacity) to an institution can create difficulties for both researcher and participant(s): for example they may not feel comfortable in responding to questions in case their views conflict with those of their employers (Flick 1998). Flick (1998) recognises that complications can relate to the views of the establishment towards the aims and intentions of the research or towards the researcher's professional conduct. This is an important factor as negative perceptions may incur

repercussions which affect the final data. Therefore ethics and participant understanding are paramount in any empirical project. It is the duty of the researcher to ensure that each participant's role and rights within the study are defined for all involved in the process (including the institution(s)). This emphasises the importance and need for informed consent (Gall et al. 2007; Ruane 2005). If the research is viewed with suspicion, Flick (1998) suggests that this may, to some degree, impinge on the amount and/or quality of data obtained or indeed the number of participants who agree to contribute. Another point to be considered is research as a 'work of agreement', or the research partnership. Contact details for me, my supervisors, and the Head of the Faculty Research Committee were available on the email invitation to participants if they required additional information or had concerns regarding the data collection process. This research and data collection process was approved by the Faculty of Education Ethics Committee on 2 May 2008 and by the Conservatoire's Research Review Committee on 22 April 2008 (subject to accommodating their requests).

## **Conclusion**

Analysis and interpretation of data within any research is paramount (be this for richness, validation or both). The main concern for the researcher is the need for quality (Golafshani 2003): quality and reliability of information come from careful planning and consideration of the research questions and how best to answer these (Golafshani 2003). The analytical method adopted should also relate to the research questions. In the case of this study, qualitative methodologies were chosen as the most appropriate means of unravelling the personal constructs of its participants with respect to musical ability. As stressed in chapter 4 (through discussion of the work of Winstanley) there is a perception that provision for gifted and talented children is elitist. It is through empirical data collection, and interacting with those in a 'real-life' context, that such assumptions are tested.

## 8 The professional musicians

The content of this chapter builds on previous chapters by relating theoretical and conceptual aspects to empirical data gathered from interviews with professional musicians. It should be noted at this stage that chapters 8-11 contain large elements of descriptive data, the key intention being to explore the data and identify important themes and issues. The chapters will describe the data, providing links to literature and some analysis in order to explore specific issues, but the overall purpose will be to explain the findings as a basis for the deeper analysis and discussion provided in chapter 12.

The data contained in this chapter focuses on responses gathered from musicians (n=62), with the aim of understanding the influences which they consider to be at the core of their musical development. The research questions which this data addresses are as follows:

- 1b How is gift and talent conceptualised by musicians, performers and teachers?
- 2 How is musical gift/talent identified?

The participants discussed in this chapter are recognised professionals and are critically acclaimed musicians (having a high national and international profile, including sustained levels of ticket and record sales - as stated in chapter 7). Some have acknowledged expertise in their field as evidenced by their teaching links to academies of music. 130 musicians were contacted and invited to participate in the research, with 62 agreeing to contribute (47.7%). As can be seen in Table 8.1, the participants were drawn from three genres: Classical, Traditional and Pop/Jazz music (which includes Blues musicians).

**Table 8.1: Participating musicians by genre**

<b>Genre</b>	<b>Number invited</b>	<b>Number responded</b>	<b>Return rate (%)</b>
<b>Classical</b>	60	32	53.3
<b>Traditional</b>	20	11	55
<b>Pop/Jazz</b>	50	19	38

Originally Jazz was considered as a category in its own right. However, many of the Pop respondents could identify with both areas, therefore a joint categorisation was created (Pop/Jazz). In relation to the classical participants, the term ‘classical musician’ is associated with those who have a musical background allied to Western Art music or who are commonly perceived as being performers/composers of Western styles of art music (see Spruce 2005). The traditional musicians - or ‘folk’ musicians (see Green 2008a) - belong to a genre where their national culture and heritage are strongly related to their musical output. Folkestad (2009:152) relates traditional music to national music and identity, considering that “it is a result of the cultural, ethnic, religious and national contexts in which people live”. Traditional music is strongly related to the cultural values and beliefs which a country or community holds, with these values and beliefs usually passed from generation to generation through a process of enculturation (Green 2008a). Invitations to contribute were sent to traditional musicians from the United Kingdom as well as other European countries, and North America. However the traditional musicians who participated all come from Scotland, Ireland and Wales.

As mentioned in chapter 5, although these three genres are wide, many of the participants are fusion musicians, bridging several genres and sub-genres. The categories used in this research reflect the musical backgrounds within which the musicians have accumulated critical acclaim. Similarly, for the purposes of this chapter, all respondents have been termed as ‘musician’ unless otherwise stated. (Many of the participants compose and arrange music for themselves and other artists in addition to performing.) In the analysis of responses, the respondents are distinguished by genre and number: for example, Pop/Jazz Musician 1 (P/JM 1), Classical Musician 1 (CM 1), Traditional Musician 1 (TM 1), and so on.

The data was gathered via semi-structured interview and electronic questionnaire. The intention was for all participants to be offered a face-to-face interview, with a paper equivalent available as an alternative means of participation. However, after addressing the Conservatoire access conditions, the semi-structured interview was digitised and placed on the University of Glasgow's Virtual Learning Environment (VLE) and so could be offered to a wider population with more ease and speed. (Information on access conditions is found in chapter 5). Although the richness of additional questions that would have been gained through a face-to-face dialogue was forfeited, the semi-structured interview was digitised to send electronically to the musicians to accommodate their work commitments where necessary (see participation rates in Table 8.2).

**Table 8.2: Method of Participation by genre**

<b>Genre</b>	<b>Face-to-face participation</b>	<b>Electronic participation</b>
<b>Classical</b>	2	30
<b>Traditional</b>	3	8
<b>Pop/Jazz</b>	2	17

The interview schedules asked the participants to reflect upon four themes: background, family/group involvement, development and identification. After analysing the musicians' responses, three themes emerged. These are:

1. perceptions of gift and talent;
2. characteristics of giftedness and talent;
3. and the role of self-efficacy in talent development.

The responses to the questionnaires and interview schedules will now be explored in depth. At this point, it is important to note that the views expressed in this chapter are those of professional musicians and the wording of their statements reflect the insider knowledge and vernacular found in professional musical cultures. Therefore, their responses contain elements of musical vernacular, using words and phrases to describe their ability that have meaning in common usage within their own music worlds (whether pop, jazz, blues,

traditional or classical). These terms may have different meanings than they would have for music academics or music teachers. The jargon terms are also noticeable in the responses from the young people at the National Centre of Excellence (NCE) (explored in chapter 11). In order to ensure that the data remained as participant-centred as possible, the thesis retains these cultural jargon rather than offer interpretations which may wrongly interpret the terms (moving them away from the participants' original meanings) or lose particular nuances apparent in the answers (see Gall et al., 2007).

### **Perceptions of gift and talent**

This section will explore how the participants thought about their ability. The questionnaires and interview schedules used the terms 'gift' and 'talent', but allowed for additional terms to surface (for example, creativity, hard work and disposition to learning or practising). While '*gift*' and '*talent*' were used frequently by the participants, examples of additional terms used by the respondents to describe their musical abilities can be seen in Table 8.3. The table of terms was compiled from the analysis of responses:

**Table 8.3: Musicians' terminology associated with 'gift' and 'talent' (with frequency of response per genre)**

Term (musical ability as...)	Pop/Jazz	Traditional	Classical	Total
Ability	35	38	71	<b>144</b>
Encouragement	21	8	38	<b>67</b>
Talent	15	11	41	<b>67</b>
Feel/touch	30	16	19	<b>65</b>
Gift	13	13	32	<b>58</b>
Technical	23	9	17	<b>49</b>
Interest	9	9	28	<b>46</b>
Skill	15	8	16	<b>39</b>
Natural	9	13	15	<b>37</b>
Taught/teachable/nurture	9	9	14	<b>32</b>
Practise	7	5	16	<b>28</b>
Need	10	13	2	<b>25</b>
Belief/believing (in oneself)	6	5	10	<b>21</b>
Created	6	4	7	<b>17</b>
Inspiration/inspired	5	4	8	<b>17</b>
Awareness	2	6	6	<b>14</b>
Born (with ability)/innate	2	4	6	<b>12</b>
Motivation/drive	5	2	5	<b>12</b>
Hard work/strive	1	3	7	<b>11</b>
Mastery	2	1	8	<b>11</b>
Passion	1	6	3	<b>10</b>
Creativity	5	1	2	<b>8</b>
Enthusiasm	1	3	4	<b>8</b>
Affinity/at oneness (with medium)	1	2	4	<b>7</b>
Appreciation	1	4	2	<b>7</b>
Determination	1		5	<b>6</b>

**Table 8.3: Musicians' terminology associated with 'gift' and 'talent' (with frequency of response per genre) (continued)**

Term (musical ability as...)	Pop/Jazz	Traditional	Classical	Total
Craft	2	1	2	5
Energy	3	1		4
Ease		3		3
Obsession	2		1	3
Responsible/responsibility (discipline)	1		2	3
Trait	1		2	3
Expert		2		2
Flair	2			2
Get lost in music/submersion	2			2
Vibe	1	1		2
Disposition		1		1

The table highlights the musicians' use of '*ability*' (144), which was used more often than both '*gift*' and '*talent*'. It would appear that to possess ability was considered as being similar to participating in, and undertaking, music-related tasks (or being able to do something music-related) without mentioning the degree of skill involved. Howe (1998) notes that the definition of '*ability*' is wide and vague, encompassing both physical and mental competencies. He considers that the term underlines that an individual is capable of doing *something* but does not explain why they can do it (Howe 1998). To some extent, the musicians' responses mirrored this view: the participants considered ability as a general concept as opposed to a specialised or refined attribute. From Table 8.3 (above), it can be seen that the participants used the term '*talent*' more often than '*gift*'. However it is interesting to note that '*encouragement*' was also a recurring feature when they described how musical ability developed. In addition, aspects such as work ethic, development processes and personal dedication were seen as being required for talent development. Many of the musicians believed these aspects could not be separated from concepts of gift.

A number of the terms which the musicians used to describe their ability were expressions common to, and recognisable in, their own music genre. Some phrases could be commonly understood in non-musical circles, for example motivation and technique. However, other terms such as ‘disposition’ can be open to different interpretations across different fields of study or professional activities. In the non-musical sense, disposition can be seen as relating to Dweck’s (2006) concept of mindset, or relating to an innate characteristic of an individual (see Baker and Horton 2010). Other terms such as ‘getting lost in music’ or ‘feel’ are particularly music-specific responses, and correspond to the emotional responses of musicians who feel enveloped in a musical experience (see Storr 1997). The idea of ‘getting lost’ (in music) or having a ‘feel’ for music has parallels with the work of Csikszentmihalyi (1996) in relation to *flow theory* which explicitly addresses the idea of getting lost in activity (see also Sheridan and Byrne (2002) on *flow* in relation to music education). Csikszentmihalyi discovered that “artists and athletes are particularly prone to experiencing flow” (Bakker, 2005:28). Indeed “the practice, performance, and transference of music offers many reasons to become totally immersed in the activity. The identification with the music allows the musician to feel at one with and become absorbed in the music” (Bakker 2005:28).

While connections can be made between musical and non-musical meanings of these terms, it is necessary to consider the context in which the participant used the term. From the context of their overall statements, the musicians appeared to use gift and talent interchangeably. However, the idea of a hierarchy of gift and talent was evident, with some participants (largely from the classical genre) considering gift to be of a higher order than talent. In relation to gifted and talented literature, gift is sometimes considered to be at a higher level of ability than talent (see Callahan 1997). Callahan (1997) states that it was not until the work of Renzulli (1977) in the 1970s that this hierarchy began to be deconstructed. In relation to this thesis, the underlying notion of a hierarchy of terms could be seen as a reflection of the musicians’ musical and cultural identities and values. The Classical musicians’ responses align to Callahan’s (1997) hierarchy, however fuller analysis of this issue is beyond the scope of this thesis.

The remainder of the chapter will now discuss the characteristics of gift and talent as outlined in the participants’ responses. The following themes arose:

- The extent to which individuals can be considered as gifted or talented?
- The characteristics of giftedness and the characteristics of talent.
- The identification and recognition of ability.
- The roles of chance and self-efficacy in talent development.

### **Gifted or talented?**

Across all data gathered from the musicians, ‘gift’ was never mentioned as a lone attribute of high musical ability. Instead, gift was associated with other elements such as luck, determination or hard work. The participants felt that their musical ability did have an innate grounding, but their responses suggest that development of ability more strongly related to self-motivation and self-efficacy, or to a determination to become better, than it did to any innate basis of talent.

All musicians were asked if they considered themselves to be gifted or talented. This proved to be the question with one of the highest response rates (98.4%). From the responses gathered, some participants were reluctant to term themselves as ‘gifted’ or ‘talented’, preferring instead to acknowledge that they had ‘ability’ in music. The classical musicians (n=32) tended to use the terms ‘gift’ and ‘talent’ more freely than other genres and demonstrated more ease in labelling themselves as such. Four pop/jazz musicians did comment that they did not like the terminology, preferring alternative responses, for example ‘*s/he’s into it [music]*’ (P/JM 2) or simply stated that ‘*I don’t believe in it*’ (P/JMs 3 and 13). The latter response was also found in the Traditional genre however, reflecting a wider view present in their home communities. Music, to these communities, is a communal activity which should be shared by all regardless of level of ability (see Green, 2008a; Green 2010; MacDonald et al., 2009).

For some participants, talent development related to the idea that they were compelled to play music because of the powerful emotional effect exerted:

*The pompous clichéd but true answer is that music chooses one, not the other way around. There was no choice in the matter. Having said that it is not all plain sailing and I often hate it, but it's a drug that one needs. (CM 6)*

This notion of music as a 'drug' has been explored in research by McPhee et al. (2005) and by Sloboda (2002), with Sloboda terming such emotional effects as 'peak musical experiences: emotional events which create a higher drive for talent development through performance opportunities and musical appreciation. Similar experiences were noted by other participants:

*I suppose emotional involvement. Sometimes a person finds his "voice" - I finally found mine. The sound of the marimba (xylophone) was unique and warm and gave me the possibility to personally identify emotionally with what I was doing. I wasn't "playing" - I was being. And I still am. (CM 4)*

*Failure as an actor led to seeking comfort at the guitar...The psychological benefits of putting my emotions on paper were immediate. The acceptance of my songs as 'meaningful' to others was a great confidence builder and eventually led to a very very comfortable life. (P/JM 8)*

It is possible, then, that being gifted or talented is linked to a sense of *having to* perform a chosen activity, relating to an inner drive or 'compulsion' (see Grobman, 2006:201) with the emotional effects sustaining further participation in the activity.

The term *talent* was applied more generally by the participants, although the term appeared to cause confusion among some respondents. Two musicians made specific reference to this confusion in their answers. Overall, some respondents considered talent to be synonymous with general musical ability which could be attained over a period of time. In general, the participants deemed their high ability to be the product of application and discipline in addition to having access to enriching experiences and opportunities.

## Identification and recognition of ability

Many participants were modest in expressing their views on their own ability yet considered that if they were held in high esteem by their peers (or by noted individuals within their chosen musical field) this gave a positive indication of their musical ability. When asked whether they considered themselves to be gifted, the musicians stated:

*I wouldn't have said that [I am gifted] by myself, and I had to learn to accept thousands of people saying it for me to learn to believe it. (CM 2)*

*This is probably something better said by others. I believe that I have been blessed with some wonderful gifts and combined with hard work and dedication, that this, and some good fortune, has allowed me the privilege of realizing my dream of working in music. (CM 16)*

*That's for others to decide but I have had a long and, (I think) successful career. (CM 31)*

*I'm too modest. I don't like the terms or calling myself anything. I just accept that I like music and being involved. (P/JM 13)*

Peer identification or recognition of ability - rather than self-identification - was most significant within the pop/jazz genre, although it was also a factor for the classical participants. P/JM 3 did not attend any specialist school or University for music studies. Instead, she believed that she had 'learned the hard way': "...I would have loved to have gotten some certificate that said I knew something about something. I cherish my honorary degrees...and now an MBE [Member of the British Empire] for services to music. I have them, they have validated me so much" (P/JM 3). Although this participant has had a variety of learning experiences, it was not until later that she gained validation for her skills, therefore she values this recognition. This would suggest that to be noted and respected for their art is a barometer for their ability and can act as a spur for future projects.

Generally, the pop/jazz participants preferred to discuss the social elements of talent development rather than focusing on their own ability in isolation. This view was shared, albeit it to a smaller degree, by the traditional musicians. They appeared to combine the ‘talent as innate’ aspect mentioned by the classical musicians but also acknowledged the nurture qualities mentioned by the pop/jazz view. The musicians from the Traditional music genre predominantly performed Celtic/Scottish music and preferred once again to avoid terming themselves as gifted or talented. Arguably, in contexts where music performance is seen as routine it may be difficult to identify the ‘gifted’ musician. This appeared true for TM 1 who felt that no one was singled out in her community as gifted or talented; anyone who demonstrated a keen interest was encouraged and nurtured by community elders or peers. It is interesting to note that TM 1 believed that developing and nurturing musical interest was more apparent for instrumentalists than singers. This was largely a result of everyone singing as a matter of routine. This would suggest that some skills could be overlooked if they were deemed as common within the community. Later in her response TM1 commented that she did not realise the extent of her own ability until she had the opportunity to work with music students. This afforded her the chance to compare her skills with those of her students. The context of teaching allowed this participant the opportunity to compare her ability to someone who, after an entrance audition, was deemed to be musically talented. While this may be considered as a ‘late’ awareness of ability, particularly in relation to some of the other participants, the norm in TM 1’s community was that everyone was a singer therefore musical ability was seen as routine and common.

In relation to the responses of some classical musicians, there was a link made by the participants between self-perception of musicianship and talent. Whereas the pop/jazz and traditional participants felt that the extent of their ability was for others to decide, the classical musicians *constructed* their view of musicianship to a greater extent. This construction was important for both their identity as a musician and influenced whether they considered themselves to be gifted or talented. CM 1, for example, did not believe himself to be “*naturally talented in the most obvious musical ways [performance]*” but stated that his role as a conductor allowed him to demonstrate his success as a manager of people. A similar view was seen in the response from CM 22:

*Musically I would say that I have a more natural ability with rhythm and harmony than others. In a non-musical sense I am also hard-working, focussed, a high achiever and a good communicator, all of which is necessary to be a good musical performer on stage.*

Both views (CMs 1 and 22) would suggest that musical talent and high ability in music is about more than performance or technical proficiency on voice or instrument. High ability can be more generalised and consist, in part, of transferable skills not necessarily specific to music. The participants' views emphasise the role of application and resilience in developing and shaping high ability, as well as additional sub-skills such as communication and management.

### **Characteristics of giftedness**

While many of the musicians used the terms '*gift*' and '*talent*' interchangeably, some were certain about the properties related to giftedness. Their perceptions largely centred around gift as something more refined and special than someone who has worked hard to achieve:

*...talented being average in that environment and gifted above average then I would say the latter. (CM 12)*

*I think my musicality is probably both a talent (which takes work) and a gift (supportive environment early on etc). (CM 18)*

CM 18 considers gift as requiring a supportive environment as opposed to being an innate, natural trait. The conflation of the terms was not purely confined to the classical genre, with additional examples arising in both the pop/jazz and traditional musician responses: "*I am talented and music does come naturally for me. I wouldn't say I am "gifted," but many of my abilities are innate*" (P/JM 14). Other participants seem quite clear that 'gift' is 'talent-plus'.

As commented upon earlier, the notion of a hierarchy of terms became apparent: gift being considered as the natural element, with talent equating to hard work. This would suggest that there is a continuum of ability along which gift and talent lie. Callahan (1997) notes

that the assortment of terms used within the gifted and talented literature has added to perceptions that a continuum exists. From a musical perspective, Stollery and McPhee (2002) comment (from analysis of research literature) that a fluid continuum of ability is present. This leads the authors to suggest that we all possess the potential to become musically talented under optimum conditions - or what they term 'conditions for musical excellence' (McPhee et al. 2005; Stollery and McPhee 2002) (see chapter 6 of this thesis). While lacking in terms of methodological rigour in what could be seen as an assumptive piece of research, the work of Stollery and McPhee (2002) and McPhee et al. (2005) does make the point that it is the aspects which relate to development which ultimately are important rather than, or as much as, any innate ability.

In relation to recognising gift in others, some musicians believed that giftedness was easily recognisable, and had the characteristic of making an individual stand out from his/her peers:

*For some, musical ability comes across in their passion for what they do; for others, it is the clean and crisp technique, evenness of touch or velocity with which they can sing or play accurately. Of course, in the best performers, these things coincide. (TM 7)*

*A certain naturalness in playing, a oneness with one's instrument and/or the ability to "speak" the music instead of reiterating scales. (CM 4)*

*When I hear a composer do something unexpected but also inevitable, that impresses me. I think some musicians or composers do things that strike you viscerally as "musical". It is almost indefinable expect to say you know it when you hear it. (CM 15)*

*I can't answer those questions about how do you recognise talent in others because they seem self-evident. (CM 24)*

While the musicians may have been reluctant to say that they possessed outright gift themselves, or that they viewed their own musical ability as 'special', the idea of 'naturalness' in ability was evident in many responses:

*I think that my musical ability is a gift. It's as natural for me as walking, eating, breathing – maybe even more than these. (P/JM 11).*

*It feels entirely natural – a vocation – I love doing it. (CM 32)*

*[It's h]ard to blow your own trumpet. I think I was very lucky. I can do stuff other people can't do or that it would take them weeks, months or years to accomplish. To me this is like falling off a log. You have to create your own challenges when you feel like that...I was able to play something straight off, so there's no way to say where it came from, so it was a gift of some kind. At the same time, it's a lot of hard work to stay in the game. (TM 3)*

This notion of having 'no choice' in following a musical path became a recurring feature for several of the participants. For example, CM 6 considers his musical ability to be so natural that it is almost as routine as physiological needs such as breathing. Hallam (2006) and Cross and Morley (2002) acknowledges the physiological and emotive effects that musicians can experience when engaged in musical activities, with the musicians considering this as part of their being. From a psychological perspective, MacDonald et al. (2009) relate this to musical identity, noting that those who have a stronger affiliation and connection to music and musical tasks are more likely to experience a higher and more intense level of engagement and consequently are more likely to experience a higher level of application and emotional involvement and commitment in what they do.

### **Characteristics of talent**

A consensus across the three genres emerged that it is difficult to separate hard work and/or nurture from talent. The musicians were asked about how they developed their talent (see Appendix 1, Questions 12, 15 and 16). Talent (to the musicians) requires the individual to possess ability but also requires a strong work ethic and a commitment to developing and honing skill:

*[I would say I am] a bit talented, but mostly hard working. Discipline and application have been more significant than any great talent in my development. (TM 6)*

*I would say that I am more talented than others. It's curious, some who are talented assume that you don't have to do anything and therefore don't, but I see that there is a reason to this, you are talented but not prepared. You need to keep working at it...Talent will not survive on its own. It takes careful preening and preparation. You should consider this as a gift to be polished in order to truly shine. (CM 2)*

*I would say that I am an incredibly hard worker with a determination to succeed. All the talent in the world does not ensure success or a career in music. Perseverance is essential. (CM 23)*

Dai et al. (1998) note that the gifted and talented attribute their success to hard work. Indeed, the feeling of self-control and choice through a work ethic can have a motivating effect on development, leading to a sense that talent is capable of development rather than individuals being at “the mercy of naturally endowed aptitude over which one has no control” (Dai et al. 1998:51). This was seen in a response from a classical participant:

*I was pretty average until I got into High School and then began to get better than the others, mostly because I practised a lot...I got inspired in High School to work harder. I was always pretty competitive and was a straight A student. Most people of this type of mindset tend to be good at a lot of things because they work very hard at everything they do and failure is not an option. (CM 23)*

Interestingly, this notion of self-expectation was shared in an assortment of ways across the participants, ranging from the effects of self-doubt and self-concepts of ability in a given task, to discussion of meeting high expectations from self and others. The quotation from CM 23 points out two interesting features. Firstly she notes that her intrinsic motivation was ignited through extrinsic opportunity (inspiration in High School). In other words, she has had an enhancing experience (Stollery and McPhee 2002). Secondly, the idea of a ‘mindset’ emerges. CM 23 equates her mindset to a focus and determination to excel in the task at hand. Hargreaves and Marshall (2003) note the importance of the mindset in music pupils. If a pupil is provided with the support and encouragement from the teacher to believe that they can be successful in a task, it is more likely that the individual will engage in the activity. This is also reflected in terms of mindsets in that implicit theories and goals can predict and impact on the contribution of the individual (Dweck 2000). By supporting learners to overcome challenges, teachers or practitioners are more likely to encourage the learner to engage in growth mindset actions (Dweck 2000; 2006).

A third aspect identified in the responses is the importance of self-efficacy and application, suggesting that these are key features in developing high ability. This relates to the work of Bandura (1977) and Dai et al. (1998) who suggest that the amount of application involved in talent development or learning is driven by the individual's internal motivation and commitment. The level of success in a task is seen as related to the amount of effort afforded. Self-efficacy will be discussed more fully later in this chapter.

### **The role of chance in talent development**

While the musicians believed that giftedness was special and easily recognisable, several passed comment on good fortune and luck in the development process. This spanned from the origins of their musical gift, through the identification and development processes. In terms of the origins of their ability, CM 16 and TM 5 considered luck to have been evident:

*I believe that I have been blessed with some wonderful gifts and combined with hard work and dedication, that this, and some good fortune, has allowed me the privilege of realising my dream of working in music. (CM 16)*

*I am a talented singer but the voice itself was a gift either from God, or, if you prefer, the great good fortune of having two parents who were both fine singers. I find it difficult to describe what I do – perhaps I am afraid if I analyse it, it will disappear. (TM 5)*

The view of luck from TM 5 would suggest that she is cautious of her ability, almost believing it to be finite. The quotation above is also an interesting case as the response suggests that there are genetic, inherited elements to ability which would relate to one of Gagné's (2004) two 'rolls of the dice' – elements of chance over which the individual has little control. Whereas Gagné's first roll of the dice relates to influences from birth (physical ability, family history, birth order), the second roll is found in the development process (access to opportunities and encounters with others) (Gagné 2004). The genetic viewpoint was not shared across the respondents, although all musicians did acknowledge or appreciate the input of their family in other ways. Role and influence of the family will be discussed in more detail later in this chapter.

Whereas the two musicians' comments relate to Gagné's (2004) first 'roll of the dice', CM 11 considers gift or talent to be things which require good fortune to be noticed or identified: "*I imagine gifted to mean some extraordinary natural ability that few are born with. I believe it is always recognised. Talent is a seed of ability which may go unnoticed and to evolve into something of worth requires total dedication and focus....and luck*" (CM 11). CM 1 supported the view of CM 11, again noting that some traits were clear, but identifying these traits was a more longitudinal process of looking for clues:

*...I think it's harder to recognise the sort of talent that I seem to have - since it might not be immediately evident and/or might emerge over the years. Therefore, it's perhaps crucial to recognise a particular keenness, application or obsessiveness about music - which might or might not lead on to a successful career. (CM 1)*

The views of both musicians emphasise that chance and good fortune were present in their development. For Gagné (2004), chance is one of three catalysts which can impact not only on the learning and teaching process, but can also influence the 'raw', natural ability domain as well as the other catalysts (Environmental and Intrinsic). As chance is an element over which the individual has little or no control, the randomness of this catalyst makes it difficult to measure for each participant in this research. Instead, this study recognises the windows of opportunity felt by the musicians and how they internalised and used the experience/opportunity to further their development. CM 11, relates chance to the opportunity of relationships a view discussed within Bandura's (1982) concept of self-efficacy. Within this, Bandura (1982:748) acknowledges the role of chance highlighting that, while the individual may intentionally look for a particular opportunity or experience, "the persons who thereby enter their lives are determined by a large element of chance".

The final view of good fortune discussed by the participants was stressed by two participants who believed that, although access to opportunity may be created, it is ultimately how the individual perceives and responds to opportunities and experiences which determines if talent will be realised. P/JM 9 highlights this aspect in relation to her own development:

*I'd say I have musical ability, but that's not the main thing. I think the main thing that has helped me to take music forward as a career is having support and encouragement and opportunities to learn and also taking time to practise, learn and develop as a songwriter and musician. (P/JM 9)*

Her response is interesting as it demonstrates that although support and additional factors may be on offer to accommodate one's ability and interest it requires the individual to possess the desire to develop their skills. A similar view was felt by TM 1:

*[I believe that musical ability is] definitely innate, but then again, it's about personal reaction. People react in different ways to different events/experiences and have different ways to develop. There is a predisposition, imagination and sensitivity which responds to people, materials, conditions and situations. (TM 1)*

Gladwell (2008:55), who believes that innate ability is perhaps not as important to the successful display of talent as much as the good fortune of the opportunity which arises and how the individual responds to this: "what truly distinguishes [the gifted/more able] histories is not their extraordinary talent but their extraordinary opportunities".

### **The role of self-efficacy in talent development**

The discussion so far has provided an insight into how the participants conceptualised musical gift and talent. The responses underline several interesting aspects, for example, their desire to be involved in music (their 'want' and 'need' to participate), the hard work involved in talent development, and the commitment and dedication to improving musical skills. In relation to this research, the participants felt that playing music successfully depended on more than self-esteem; rather it depended on developing their skills towards mastery achieved through successful accomplishment of goals. The musicians indicate a range of diverse skills, experiences and opportunities which they consider to have influenced their musical development, or awakened an interest or desire to pursue music. Although parallels can be drawn to the work of Gagné (2004) and Renzulli (1986) (see chapters 3 and 4), the musicians made core statements which align with Bandura's (1994) concept of self-efficacy, for example regarding resilience and determination to succeed.

At the core of self-efficacy lie both resilience and expectation, features which were evident in the responses from the musicians. The responses from a number of classical musicians (see CMs 11, 13, 16, 23 and 26) give evidence of the need for resilience:

*You have to feel by yourself that this is the thing what you really want to do. Even when sometimes conditions [are] not best for you. You have to believe very deeply in yourself. (CM 13)*

*I recognized that I had an affinity and ability for music in my teenage years. I think many professional musicians still struggle with personal insecurities and in assessing their talents. (CM 16)*

*I volunteered to play organ in church when I was about 16 – it was disastrous (or so I thought!), but I was determined to improve and taught myself to play. (CM 26)*

These responses highlight the need for resilience and determination in the development of talent but, in addition, they emphasise the impact of self-doubt (which could be interpreted by the individual as a ‘threat’ or ‘challenge’). This is an interesting feature, as it would suggest that a potential delimiting factor can come from within the individual arising from their personal expectations (particularly any self-critical views that they hold). Again, further connections can be made to the response of CM 23 at the beginning of this section whereby ‘failure was not an option’: this musician set herself high expectations to attain. An element of self-doubt appeared in a response from CM 11 who commented:

*I’ve done a lot of recording as well as live performances. I love performing in opera as it’s much easier to play a character than to be yourself, and you get the camaraderie of your colleagues. Having said that, in the last 6 years I’ve done almost nothing but concerts and have learnt how to ‘play’ myself and hold an audience for 2 hours. I love the spontaneity, the danger, the putting yourself right up there to be judged, the fact no performance will ever be good enough. It’s organised chaos. (CM 11)*

It is interesting that this participant is more ‘at ease’ in playing a character rather than performing as an artist in her own right. However, it would appear that this self-doubt provides a motivating influence on her performance, with the participant developing ‘coping’ strategies to overcome this challenge. Again, the response from CM 11 is another

example of the importance of internalisation as well as of perception (of something which could be seen as a potentially delimiting experience).

An important aspect to resilience is the ability to retain task commitment. Although participants from the pop/jazz domain generally preferred others commenting on their ability, it would appear that the musicians subconsciously judged their own ability through aspects such as task commitment. The commitment shown towards, and effort exerted on, a task seemed to act as indicators of the likelihood of success, once again similar to the ‘failure not an option’ response. The concept of self-efficacy emphasises this: “mastery expectations influence performance and are, in turn, altered by the cumulative effects of one’s efforts” (Bandura 1977:194). In other words, those who have high self-efficacy understand that failure is always related to effort. When they do not succeed in a particular task they do not see this as a reflection of their lack of skills, but relate the failure to the amount of effort they have given to the task. Merely having an expectation of success in your field is not enough: mastery of a skill requires a degree of action to ensure that success materialises (Bandura 1977).

Whereas the work of Cairns (1996) and Hase (2000) (discussed in chapter 5) stresses the ability of capable people to adapt to the complexities of their working context, Bandura’s (1994) concept of self-efficacy considers how individuals develop resilience and coping strategies in order to become capable. Developing capability and self-efficacy relies on four components (Bandura 1994): verbal persuasion; performance accomplishments; vicarious experiences and emotional arousal. All four sources contribute to the formation of high efficacy to varying degrees. The next sections of this chapter will look at these four sources in relation to the data gathered from the participants.

### **Verbal persuasion**

As noted in chapter 5, verbal persuasion is related to the interpersonal dimension of development (Bandura 1977). This is where the individual’s ability is encouraged by credible others or from experts in their field. As Bandura (1977:198) highlights, “[p]eople are led, through suggestion, into believing they can cope successfully with what has

overwhelmed them in the past". This can take form of a constructive feedback or as a means of providing a short burst of self-belief in one's ability:

People who are socially persuaded that they possess the capabilities to master difficult situations and are provided with provisional aids for effective action are likely to mobilize greater effort than those who only receive the performance aids. (Bandura 1977:198)

This suggests that action and dialogue do go together, however dialogue should be structured at an appropriate level for the individual, with appropriate support provided to ensure progress. While verbal experiences may not necessarily be as rich a source for self-efficacy as performance, Bandura considers that verbal interactions can positively reinforce progress in activities. However, he is aware that the positive results of verbal persuasion can sometimes be unravelled by a negative practical experience or by existing self-belief:

Simply informing participants that they will or will not benefit... does not mean that they necessarily believe what they are told, especially when it contradicts their other personal experiences...verbal influence is aimed mainly at raising outcome expectations rather than enhancing self-efficacy. (Bandura 1977:198)

The participating musicians noted a variety of sources of verbal persuasion in their development. It was commented on more by the pop/jazz and traditional musicians than the classical musicians. This may be due to the nature of these genres, where talent development is seen as more reliant on informal means of learning (as opposed to musicians from the classical genre where formal learning was crucial). Some of these verbal experiences were negative yet acted as a spur for development; others were disregarded by the musicians completely. TM 5 recalls a more humorous experience:

*I was encouraged by people like the late [XX], [YY] and everyone at the early folk clubs in [ZZ]. Mind you, I also had to put up with the sons of doctor[s], lawyers etc telling me my voice was 'too pure' to be a folk singer. They had been listening to recordings of old singers while I had the benefit of growing up with the real thing so never felt the need to try and sound as if I had just had my tonsils removed by a drunk joiner wielding a blunt hacksaw! (TM 5)*

This response stresses TM 5's resilience and commitment to succeed in the face of criticism. Whereas (s)he could have seen this criticism as a 'threat' or failure, this musician knew which qualities (s)he wished to develop and continued on her own path.

A similar experience was recorded by TM 1. This participant sang a song to an academic who was negative about her performance and about her understanding of the piece. Although initially upset at the experience, TM 1 was able to understand how this incident shaped her development and realised that the feedback could aid her. (S)he suggested that all feedback, constructive, negative or otherwise is important to a learner, as are encounters with other individuals, both musical and non-musical alike through

*...guidance, explaining, steering towards material and...pointing me in directions that I might not have realised as important at the time, but learned to listen and the importance of taking in what other people said, even if you don't understand at the time, you store it until it is of use. (TM 1)*

Personal perception and self-belief can be strong determinants in how an individual interprets an experience. What is an enhancing experience to one individual may be a potentially delimiting experience for another. If an individual perceives the criticism to be constructive in nature then it can be used to encourage and enhance learning. If the individual is made to feel inadequate, or that their best is not good enough, then the likelihood is that they may not continue their development. This links to the views of mindset highlighted by Hargreaves and Marshall (2003) and Maclean (2003) who both acknowledge the role of the teacher in encouraging the pupil to develop a 'can do' attitude towards their work. In relation to the work of Dweck (2006), the participating musicians possess a growth mindset, characterised by willingness to learn and develop in order to achieve specific task goals. It would appear to be that those who are able to transform a potentially delimiting experience to become enhancing in nature have a strong belief in their ability.

### **Performance accomplishments: the positive and the negative**

The richest and most powerful source of self-efficacy is performance accomplishment (Bandura 1994). Woolfolk et al. (2007) term elements of performance accomplishment as

‘mastery’ experiences and note that Bandura deems these as rich sources of self-efficacy because of their direct and experiential nature. This also aligns to Hase’s (2000) view of capability, whereby individual learning of coping strategies can be most effective through non-formal (non-institution-based) action or experience-based learning. Performance accomplishment encompasses an individual’s performance (including self-instruction), as well as opportunities to absorb the performances of others. Strong expectations are built through repeated success in performance (Bandura 1994). Access, opportunity and success in performance leads to the formation of coping strategies and more accurate individual judgements of ability in tasks.

One of the earliest opportunities for direct musical experience (and the encouragement of early skill which could lead to mastery) comes from the family context. Bandura (1994) considers that self-efficacy is developed over the life span, from newborn to advanced years. He believes that the child develops self-knowledge of his/her capabilities through interaction with people and their environment from birth; therefore children require an environment to explore and test their abilities. Verbal interactions with their family, either positive or negative provide the child with a means of understanding their own limitations (Bandura 1994).

### *The role of the family*

As discussed in chapter 6, a child’s initial musical encounters are often constructed by his/her family environment. Almost all of the classical musicians in this research had early exposure to music. Their home environments were musically enriching, with close family (such as parents or siblings) possessing musical training to some extent. The nature of this musical involvement tended to be performance-orientated:

*Playing music was an integral part of my grandparents’ household; that seemed to tide over into ours. Although my parents were less musical, playing music was an important activity in our home. It wasn’t uncommon for the family to gather around the piano and sing songs. (CM 15)*

Another classical musician stated that “*it never occurred to me that I didn’t [have musical ability]. We were a musical family, so musical activity was just part of the way things were*” (CM 8).

While family was also important for the traditional musicians, the community was like an extension of the family, as one participant commented, with music being part and parcel of daily life. TM 1 considered her ability to be “*quite unremarkable in family. Everyone sang...There was a passion for singing, sharing singing together in the immediate, extended family and community*”, indeed, recalling a time when “[my] younger brother [was] *amazed at someone from school who couldn't sing!*” (TM 1). While the views here are from musicians who came from active, performing families, some responses were gathered from musical ‘pioneers’ who were the first performing musicians in their family. Many of the respondents from the pop/jazz genre did come from musically appreciative home environments, but these were not largely as performance-orientated as were the homes of the classical musicians.

The views discussed so far are fairly positive accounts of family input, however negative aspects were also pointed out. Family input in the participants’ early musical activities ranged from hands on to no interest: “*neither parent played an instrument nor showed any affinity for making music an important part of their personal lives*” (P/JM 3). Many of the participants in this chapter considered their parents to be supportive of their musical pursuits. The main discrepancy which arose regarded the level of input and involvement in early talent development. While some musicians would have preferred more parental involvement, one or two used their parents’ lack on input as a spur for their development. Family and parental involvement was a key feature which demonstrated the role of perception and internalisation as discussed throughout this chapter. For example, one participant believed that, although her parents offered support, she felt that she had “*a desire to please my parents through achievement, and in later years, a need to prove them wrong that I was in fact able to make a living as a singer songwriter*” (P/JM 6).

Parental involvement in a child’s development can sometimes have detrimental effects which may impact upon the child’s enjoyment. This is an aspect commented upon by P/JM 1: “*I actually had to quit music altogether to get my father off my back. I took it up again on the condition that he butt out*”. A different experience was described by TM 10 who had access to music lessons, yet had to show real determination to continue:

*I'm thankful that my parents funded piano lessons for so long and paid for my four years at the [XXX] but the thing that most helped me was the fact that they were always asking me to stop practising. This, I believe, is what made me want to play the piano as much as possible—it was a right that I had to fight for and protect. Had they nagged me to work harder, I might not have continued as long as I did. At the end of each school year, they tried to persuade me to give up lessons but I always succeeded in fighting for one more year. (TM 10)*

In the case of all three respondents (P/JM 1, P/JM 6 and TM 10) it is how the external source (family context/parental role) is internalised or perceived by the individual which affects development of talent.

### *The role of the school*

Another important source for developing self-efficacy is school. Bandura (1994) makes reference to the role of the teacher in encouraging self-efficacy in pupils, believing that practitioners should create opportunities for children to gradually build upon their cognitive skills. This in turn fosters self-belief and can influence the child's aspirations. School was particularly influential for some participants in this research, with many recalling their teachers as a spark to their interest in music. However, some participants felt stifled by the academic nature and 'classical' orientation of opportunities on offer at school (these musicians were largely from the traditional and pop/jazz genres).

The classical musicians were largely happy with their schooling and teachers. One stated: "*...my teachers played the greatest role in my development as a musician. My piano teacher from age 9 through high school; my high school music teacher; my professors...these are the people primarily responsible for my development*" (CM 15). For another classical musician, teachers opened the door for further opportunities and networking contacts:

*I was fortunate to have two wonderful teachers; The great [XX] taught me the guitar. He identified my potential to become a good guitarist but realised I might be able to go further as a singer. He introduced me to [YY] (teacher of many light opera and musical comedy stars) who did identify the potential of my voice. [Y] wanted me to go into light opera but by that time I was becoming a busy singer with professional freelance bands on the lucrative 'gig' circuit – which of course,*

*paid for my lessons. By this time, it was obvious to all that the popular music media was where I was heading. (CM 20)*

The musician could have had an identity across both classical and pop/jazz genres even though the initial training was based in classical music. This illustrates the ‘merge’ between formal classical training and the informal ‘pop’ realm of the art when musicians develop their skills to cross genres. This merging or crossing constituted an experience of performance accomplishment for the musician, and the role of the teachers demonstrates the importance of verbal persuasion to music skills and musician identity development. CM 20’s teacher obviously considered that he possessed a high degree of musicality and wished to further this potential.

Similarly, P/JM 14 attributed their established musical status to “*training and through the motivation of special teachers*”. Another view was highlighted by TM 7 who believed that their musical ability was “*a gift passed on from [his] teacher*”. The teacher can act as a mentor for both technical and social aspects of musical development. P/JM 9 noted that their teacher’s attitude was ‘infectious’. They had been inspired

*by Mrs [X]’s praise and high expectations, by her passion for music and for what music could do for people in terms of giving pleasure and bringing people together. She was a real role model in that she used music within her community to bring people together and had a real love of music and words that was infectious. (P/JM 9)*

It is apparent that teachers offer more than practical support for their students, providing opportunities for enhancing their reputation as musicians and creating wider opportunities for development.

Some experiences described by the musicians were more delimiting in nature. Their responses also demonstrate how the participants used the negativity or delimiting factors of school and their teachers as a catalyst for development and a will to succeed in spite of their teacher’s negative expectations. Stollery and McPhee (2002) acknowledge the role of

the teacher in terms of enhancing and delimiting experiences. One classical musician noticed that a change of teacher altered his enjoyment of the subject:

*After he [my music teacher] left the school (when I was 12) it was a very different story. His replacement was a strict disciplinarian who didn't seem to get any pleasure out of music whatsoever, and when I changed schools I was considered not good enough for a music scholarship, so was not given access to theory lessons. I was very active doing my own musical activities, but it was tolerated rather than encouraged. (CM 8)*

While this may have been a difficult experience for this musician at the time, it appears that he used the efficacy-building experiences from his music-making outwith school as a motivator.

The pop/jazz and traditional musicians also reported mixed experiences of their schooling and teachers. One pop/jazz musician appeared keen for opportunities to showcase their ability, a view which also supports the need for performance opportunities. This is also seen in the work of McPhee et al. (2005) who noted that a strong feature in the development of student music teachers was performance opportunity. One participant created her own opportunity to share her talent with those in her class:

*Our teacher...would occasionally ask the girls to sing to her or do a bit of Scottish dancing and entertain her. She had a favourite girl...who was very bonny and popular in class. She sung in the knitting class one Thursday, I remember she sung **All Kinds Of Everything** which was a song **Dana** had sung on the Eurovision Song Contest. She sung it sweetly and well but she sounded as most 11 year olds sounded... sweet and childlike....I **knew** my voice was strong and I knew that I wanted to show the girls and Miss [X] that [I] could do **something** good. I always felt they were not very fond of me. I was a real dreamer and never spoke out and when I did I would always get the answers wrong or something. I never really connected with anyone...One week though I planned to sing to them all and I was determined to show them this thing that I could do that made me feel good. So, I asked my dad, a **massive** Elvis Presley fan, to write me out the words to **Love Me Tender**...Thursday came and I shocked the teacher by asking if I could sing. I was sooo shy and nervous that when she said yes I stood with my hands behind my head against the blackboard, eyes tightly closed and the occasional tear streaming down while I got through four verses of that song and felt my heart breaking while I did it. When I finished I was given nods of approval from Miss [X] who stopped being so dismissive of me and [Y] and all her cool friends wanted to walk me home. I was*

*floating on air. It was tough but worth it. After that I was known in the school as the girl who sings. (P/JM 3, original emphasis)*

This is a rich quotation in several ways. It shows determination, commitment, and passion for music even though this person's self-belief and confidence in other areas was lower. In terms of self-efficacy, P/JM 3 gained efficacy from modelling (comparing their own ability with their peers'), from vocal and emotional sources in addition to performance, and from wider musical sources. It also demonstrates that although the experience was initially self-defeating the participant persevered. This success encouraged them to build upon this experience:

*I was not the 'hit of the music dept'...but I went to guitar classes after school some afternoons and I learned how to hold the guitar better...I wasn't a fan of the material but once I had my three chords I could play Rockin' Robin...or Rebel Rebel...or Hot Love...or Long Haired Lover from Liverpool, in the classes where the bullies and rotten lassies would destroy the teacher...it was a way of surviving. (P/JM 3, original emphasis)*

Although the participant's experience had the potential to be a delimiting factor through self-doubt and nervousness, the response emphasises that success in the face of adversity (and building upon success) can inspire an individual and help them to develop resilience in the task. Again, this would link to ideas discussed in chapter 5, the notion of resilience and mindset with the individual initialising coping strategies within the 'highly turbulent contexts' (Hase, 2000) in order to develop their capabilities.

Another difficulty for the musicians was feeling 'unappreciated' by teachers in school: "*I was thrown out of the school choir for singing the harmony instead of the melody. (I thought that it sounded better that way)*" (P/JM 12). A similar view was noted by TM 5 who felt that their chosen genre was not accepted by the school:

*School was fairly good but there was a feeling that what I wanted to sing was not 'high class' enough...Most of them [teachers] were great, [but were] sometimes exasperated by my lack of application to the theory. I cherish the memory of one lovely lady who said "[X], you have the makings of a fine singer – if only you weren't quite so common!"*

A comparison can be drawn with the view of P/JM 3 earlier who noted that they did not obtain recognition until her later years:

*I used to feel that if I came from a more educated background then I would have been encouraged to sit exams and develop the more classical world or that I would have had less trouble with my throat as I had to learn the hard way what not to do and how to look after it. **But** I see now that my education has been **long** and is still going on as I move through middle age. I wouldn't have had it any other way...I had some great learning experiences. (P/JM 3, original emphasis)*

Another traditional musician felt 'pushed' into performing on violin at school as the music teacher was 'against' the participant's preferred instrument. This musician considered the teacher's approach to be very demotivating and restrictive for their development yet underlined how inspirational and supportive private tutors had been. Another noted that - although their music teacher was supportive and encouraging - options to study music were limited and some roles and professions were favoured over others in the community to which they belonged. This was a common response from several traditional musicians. The participants' views suggest that, although the musicians displayed an interest or ability in music, the context or circumstance did not 'accept' them. In the case of some, it appears this non-acceptance is a personality clash, for others it may be that the system had no way of accommodating their skills. In relation to Bandura's work, those who have high self-efficacy are likely to be innovative and forward thinking in their field, therefore they may feel that a particular context does not provide adequate support for, or understanding of, their development (see Bandura 1994). This is also noted by Hase (2000) who suggests that development of skills and coping strategies may not lie within formal education but from post-compulsory education and wider experience.

A parallel can be drawn with the increased appreciation and revival of Scottish music over the past 20 years, for example through Celtic Connections (an annual appreciation of Celtic music), through the school music curriculum, and by the establishing of the BA (Scottish Music) degree at the Royal Scottish Academy of Music and Drama in 1996 (Miller and Duesenberry 2007). The revival of Scottish arts and culture has been noted by both Munro (1996) and Scott (2003). Scott (2003) considers that much of the foundation work of the revival was laid by the Saltire Society with the rise of the Edinburgh Festival promoting Scottish arts across the world. Munro (1996) comments that the Scottish literature revival

of the 1970s was led by Scottish academics and the growth of the School of Scottish Studies in Edinburgh; however, political events during this time (and arguably to this day) have embedded the revival politically and culturally. For example, the revival has been reflected in the Scottish Executive's Cultural Strategy (2000) and also the final report of the Cultural Commission (2005). Both publications acknowledged the need to maintain, nurture and support the Gaelic language, traditional music and the Arts in Scotland. In relation to this thesis, the traditional musicians interviewed are of the period before this revival occurred, and this may be a reason for them believing that their skills were not acknowledged or appreciated at school. Now it is more likely that traditional music is valued and encouraged at school.

Each of the responses from the traditional musicians demonstrates multiple sources of efficacy. The quotations above suggest that the determination to succeed and resilience to participate in music is a large motivating factor for these musicians. Both enhancing and delimiting experiences were reported, yet their passion and drive to pursue success demonstrates that each possesses high self-efficacy through an assortment of sources. While it appears that classical musicians had more encouragement and support from their families and school, it does not mean to say that the pop/jazz and traditional musicians did not have inspirational teachers. It suggests that they internalised and responded to the experience in a different way.

### **Vicarious experiences**

Whereas the role of performance accomplishments focuses on the individual's experiential activities, vicarious experiences are opportunities which an individual may or may not act upon and which Bandura (1994) believes are of less value than performance accomplishments. This is largely recognise the lack of room for self-exploration and greater emphasis on social comparison (Bandura 1994). Bandura (1994) believes that like-minded peers and socialisation can help to promote the development of efficacy in the learner. However, the level of success of this experience in developing self-efficacy relies on how much the individual perceives there to be a similarity between themselves and the individual who can potentially model desired skills or traits.

Vicarious experiences work in two ways. Firstly, such experiences can provide clues for the individual on how to develop coping strategies in response to challenges: “[s]eeing people similar to oneself succeed by sustained effort raises observers’ beliefs that they too possess the capabilities to master comparable activities required to succeed” (Bandura 1994:72). They provide benchmarks to aspire to (in terms of success criteria and in seeing how people apply themselves to difficult situations). Secondly, vicarious experiences allow an individual to see others of lesser ability achieve more through support or ‘diversified modelling’. These examples reinforce the idea that, with sustained effort, desirable outcomes are achievable. Therefore they can enhance the individual’s task perception. It is clear that both the social element and the scaffolding element are important to vicarious experiences, again highlighting the relationship between the individual and the environment. Likewise, the responses from the musicians in this research clearly acknowledge the role of the ‘other’ in their development (be this a teacher, friend, peer or family member who helps shapes the musician in some way).

Bandura (2006) acknowledges that vicarious experiences have been misinterpreted by his contemporaries with suggestions that modelling only promotes mimicry or regurgitation (with little or no cognitive development for the individual). Bandura (2006) argues that there is more value in verbal modelling for an individual than there is in learning from physical and behavioural actions. Bandura (2006) believes that each source of self-efficacy combines and contributes to the individual’s development: criticism of an isolated component of the model, without considering it in relation to the other components, should be avoided. With respect to wider literature, the importance of modelling is also considered by Green (2008) who notes that this form of sharing practice is a popular method of learning within traditional and pop/jazz music. Modelling from older and/or more knowledgeable peers and audio recordings, in addition to absorbing and enculturating experiences, can help to shape the individual’s learning experience and musical identity. Green (2005a) recognises that this process of enculturation allows an individual to gain understanding of musical culture and their role within this culture. This was commented upon by both the successful musicians and the young people in the case study school (see chapter 11). The social aspect of musical learning will now be discussed.

### *Social elements of vicarious experiences and informal learning*

The social element of vicarious experience mentioned by the participants is noted in the work of Green (2005a; 2008a). Green (2010) discusses the importance of social experiences in musical learning: for example they allow peers to gain insight into coping strategies from one another, and offer the learner the opportunity to compare their learning to others in order to inform their own development. This is also reflected in research by Moorey (2007) in relation to pop music and vicarious pleasure. Moorey's (2007:1) research emphasises how vicarious experiences in music are pleasurable experiences which involve "pleasure in the production of (popular) music by singing along, or miming the actions of the guitarist or drummer". Within this thesis, vicarious social experiences were found more easily in some genres - for example, within the traditional and pop/jazz genres. It would appear that, within these genres, vicarious experiences were ongoing throughout the musicians' lives whereas classical participants' vicarious experiences became fewer as they reached a particular point in their talent development. Very few classical participants (mostly singers who still undergo vocal coaching) could recall current vicarious social experiences.

In the pop/jazz and traditional musical cultures, informal mentoring is a common way for learning to occur. Informal mentors are individuals who may (or may not) have had professional training, but who are recognised as having experience and knowledge in their field and their community. Many of the participants in the traditional genre did not obtain formalised training on their chosen instrument/voice until adulthood (if at all). Many developed their skill through modelling peers or recordings, or learning about the culture of their music through non-musical sources. Therefore, the vicarious and social sources of efficacy may be more important for these genres than for others.

The opportunity to share with interested individuals and learn from them can be an important motivational factor. This view was felt strongly by participants from the traditional genre, where sharing and 'inheriting' musical knowledge from community members and elders is common. TM 1 noted two musicians who had a profound impact: "*Both...had the want to share what they had, a pride in what they were doing and pleasure in their performances. Not arrogant, but liked to share it with others. They were sharing with kindred spirits, and this is important, this notion of kindred spirits*" (TM 1). A similar

view was expressed by TM 3: "... [I've] *taken a little from each person that I've come in contact with. They are generous people willing to share their experiences and [musical] ability with me. My own ability is shaped by these people*" (TM 3). This point was underlined by another participant who used wider life experiences to help increase their knowledge and to shape their musical character. This helped to strengthen the musician's own connection to their music:

*Beyond the technical competence which must be a given it is the ability to communicate. This does not mean chatting to the audience, making extravagant gestures or any other of these tricks of the trade. It is the ability to make the music speak straight to the mind, or better yet, the heart of the listener. A wise old singer once said to me "when you sing, a blind man should be able to hear it all in your voice and a deaf man should see it all in your eyes". (TM 5)*

A similar experience was noted by TM 1:

*Another significant person was [XX]...He had a profound influence on me. I was asked to sing him a song, to which he commented that I was not singing it 'right' even though I put my all into it. I thought about knowledge and (our) discussions took me well beyond the school subject. It was all about poetry, if we didn't know the songs, he made them take on 'wings' they took a different meaning, this is Gaelic classical song...Both [YY], my Gaelic teacher at [Z] School, and [XX] were the opening up of my understanding of Gaelic song. (TM 1)*

Again, this demonstrates the unique nature of the vicarious experience; where one musician may gain something from the experience, another may not. The quotation from TM 1 is also an example of verbal or social persuasion, which can contribute to success of corrective performance, either willingly or 'in spite of'. TM 1, who gave the performance their 'all' but was not good enough, showed determination to improve. Although possessing extensive experience in singing in a variety of genres, they were disheartened by this episode, but did not let this deter them from improving. Again, this highlights resilience as well as seeing this potential 'threat' as a challenge (Bandura 1994).

It was also commented upon by other participants in the pop/jazz and classical genres, whose comments further emphasise the importance of like-minded peers to talent development:

*My first songs were imitations of artists that I liked. I knew how to play many of my favourite songs with guitar and vocals – so I started to make similar songs on my own. Many times I would use my dictaphone to record and listen back. Later I bought a 4 track tape mixer from a friend and I started making more arranged music which I used [to] make my friends play in the hard core band or my acoustic band. (P/JM 18)*

*Finding and listening to great musicians and collaborators really inspired me to always reach beyond myself. (CM 25)*

The social nature of music, particularly for the pop/jazz and traditional genres, presents opportunities for communication and appreciation with likeminded individuals. A feature which CM 3 considers as opportunities to “*shar[e] music that we are enthusiastic about*”. Peers acted as benchmarks of, and competition for, development. This fact was a much-lamented absence of one participant’s experience, who felt that they would have benefitted from having more opportunity to absorb the musical culture. This could link to either experience or the need to be with like-minded peers:

*I would have liked to have been able to see gigs growing up; I feel I was a late starter in terms of listening to music and I think I could maybe be further down the line creatively in terms of style and lyrics if I had been more into listening to music at a younger age. (P/JM 3)*

Other participants recognised the importance of the social context for musical development:

*Finding the folk world out there and discovering people my age were enjoying it as well - it was like "coming out"!! (TM 7)*

*By playing in bands with musicians of similar aptitude and sometimes better aptitude- you learn all the time from them technically and from the music they listen to in vans/iPods etc. Working with experienced producers and they rub off on you. (P/JM 5)*

*Yes. I think I could have benefited from serious peers with a desire to become professionals or at least maintain a professional attitude. (CM 21)*

Where direct social experiences were lacking, modelling experiences could also be gained from access to CDs and recordings, or indeed from any opportunity to absorb, re-create and model musical culture:

*I grew up on a small island and we didn't get mainstream radio, or have record shops or a cinema, so I was lucky to have live music going on around me and a rehearsal space already in place. (P/JM 11)*

Interestingly, the responses emphasised that the participants had a wide and eclectic range of musical influences not confined to their own genre. Many pop/jazz and traditional musicians reported having classical exposure and vice versa:

*[I was] interested in jazz and wrote compositions in that genre as a teenager. I did not like contemporary classical music at that time since it was dissonant but jazz was not. I later came back to 'classical' music but by writing accessible music influenced by other cultures. (CM 6)*

In addition to imitating records and other artists, competition was considered as another form of modelling for the musicians. This form also provided the musicians with an opportunity to benchmark their own ability. Competitions were seen in all genres and could be formal (for an award or certificate) or informal (between friends and peers). The traditional Music participants tended to experience more formal competition than the other genres (for example entering or attending Mòds or other local community competitions). The general perception of the value of these events in the musicians' development varied. On the other hand, CM 26 believed that he gained more valuable experiences for his development through peer competition at school than any formal competitive event:

*There was a certain amount of 'competition' at secondary school since a number of my friends there played an instrument: the ABRSM [Associated Board of the Royal Schools of Music] exam results were widely anticipated – we all wanted to get higher scores than our friends!*

This does not mean to say that the classical musicians did not participate in formal competition: there are, in fact, several winners of national and international awards participating in this research.

Although Bandura (1994) believes vicarious experiences are less important than performance sources, data from this thesis suggests vicarious experiences are necessary components of talent development. As seen in the quotations above, while there has been some difference in the amount of the other sources for efficacy for each genre, the need to be part of a musical community was felt by all genres. Vicarious experiences offered the musicians the opportunity to benchmark their ability and to learn from and with friends. For others it allowed access to become a part of a culture or community of music, somewhere that they did not feel 'alone' or in isolation. This is supported by McPhee et al. (2005) who stress that social and contextual factors, interpersonal musical relationships and opportunities to perform, were all seen as formative experiences for musical excellence.

### **Emotional arousal and self-efficacy**

Emotional arousal refers to the physiological aspect of the individual, in terms of how they cope in the face of adversity (Bandura 1994). This can be a powerful motivator for the individual. Several of the participant musicians noted the importance of emotional arousal: they equated music with the effects of drugs, with a feeling that music was something which they were addicted to, or described music as a strong *want* or *need* which *has* to be sated. Bandura notes that “[p]eople who have a high sense of efficacy are likely to view their state of affective arousal as an energizing facilitator of performance, whereas those who are beset by self-doubts regard their arousal as a debilitator” (Bandura 1994:72). Gaining experience from stressful and difficult situations can inform the self and onlookers about individual competency (Bandura 1977). In part, talent development depends on how individuals respond to difficult situations. Those who possess a higher drive to succeed have built on previous successes (Bandura 1994) and are more likely to perceive potential threats as challenges. This is an interesting point: Stollery and McPhee’s (2002) research also highlights how the demands of musical development and motivation from others can encourage or limit the progress of talent development, but that high anxiety (as a result of previous experiences in similar tasks) can debilitate performance and create future

emotional difficulties. Such experiences can be lessened through verbal persuasion and through observing the coping strategies of others in similar learning experiences.

The participant musicians believed that their families were important figures in creating initial musical experiences which had some emotional impact. Although not from a performing background P/JM 3 came from a family who appreciated music: “*I was deeply conditioned to enjoy what music did to me physically and emotionally*”. This musician would explore their technical limitations through modelling sounds from recordings, television programmes and absorb the diverse music preferences of their family. This sharing of their own passion with others allowed for another dimension of enjoyment and satisfaction to be uncovered:

*I would just reveal it [music] and watch while people would be affected and I would not know why or how that happened. When I was older, around 10, I began to have a kind of drive about it and wanted to reveal it more often and I wanted to play with it... (P/JM 3)*

For other participants, audience reaction was the ultimate driving factor. One established musician commented that (s)he could “*still be taken aback by an audience response to my voice and, more importantly, a powerful song*” (TM 5). This demonstrates the strong effect which music can have in terms of emotional arousal and its impact on self-efficacy.

The quotations above stress the participants’ love of music – one described it as ‘*a way of survival*’ (P/JM 3). The comments demonstrate the naturalness in the attraction which the musicians feel, further emphasised that they are strongly of the opinion that music ‘chose’ them as opposed to the musicians deciding on a musical career. It would appear from the responses, both here and throughout this chapter that it is difficult to separate music from the participants. It is their way of life and a feature of their identity.

## Analysis and conclusion

The data analysed and discussed in this chapter was used to primarily answer research questions 1(b) (how is gift and talent conceptualised by musicians, performers and teachers?) and 2 (how is musical gift/talent identified?). In terms of conceptualisation, it would appear that use of the term gift to the musicians affirms an idea that musical talent is natural, innate and present in only a select few. While the participants are of the opinion that gift or talent is an innate predisposition, it also requires hard work and determination to develop musical talent. The importance placed on resilience and determination, the role of the environment and nurturing has also been underlined as important by the participants, therefore - as with many other attempted definitions of musical ability - no single *answer* emerges. However, what the responses do raise is awareness of what may constitute musical ability. Some of the attributes and descriptions offered by the respondents in this chapter were not related to music nor do they appear in the general gifted and talented literature. This would suggest that new or alternative approaches to recognising musical ability are required.

In terms of research question 2, very few musicians in this study were formally identified through examinations and tests. Indeed, some of the traits mentioned by the participants as aiding talent development are not objectively measureable (for example, commitment, enthusiasm and resilience). Instead, the acknowledgement, identification or recognition of their ability came through opportunities to benchmark their own skills, feedback from peers, or self-acknowledgement (which may come as a result of the previous two points). Some of the terms used by the musicians to describe their abilities (and those of others) would be difficult to measure and assess as distinct components of musical talent. As MacDonald et al. (2009) argue, the contemporary notion is to consider the holistic development of an individual rather than seeking to identify separate components of ability. This view is shared by Green (2010) who considers that the most effective assessment of a learner's ability is derived from observation and feedback arising from real contexts.

Having discussed the views of the professional musicians in relation to their own development, and explored their views on musical ability, the next chapter will consider the perceptions and experiences of music teaching staff and practitioners who engage with

talented musicians and people in a number of different contexts. The chapter will consider how these participants view musical ability and how perceptions of ability may impact on the way in which learners are encouraged to develop.

## **9 Programme leaders/course co-ordinators, Conservatoire Music staff and School teachers and instructors**

This chapter focuses on the views of Programme leaders/course co-ordinators (PLC) and Music teachers and instructors (T/I) at a Conservatoire and a number of secondary schools in Scotland and forms part of Empirical Strand 2. Although the response rate was small, the data gathered provided useful insights into talent development. The intention of the chapter is to provide a summary of the responses gathered from individuals who have experience of working with gifted and talented young people both in musical pursuits and other areas. While all of the T/I participants (n=20) are active musicians and/or tutors to young musicians, many PLCs (n=9) are not from musically trained backgrounds. Instead, the PLCs were selected because of their diverse experiences of working with gifted and talented young people in an assortment of fields. Additionally, the information and discussion of the school-based learning experiences of the students at the Conservatoire and Universities (chapter 10) supplement the issues which arise in the National Centre of Excellence (NCE) case study (see chapter 9).

### **The participants**

Both participating groups were asked to reflect on their conceptualisation, identification and nurturing of talent, commenting specifically on how they would recognise this within young people. Eight of the nine participating PLCs contributed in a face-to-face interview, with one contributing electronically. All T/I participants responded electronically as a result of time and access restrictions (see Methodology, chapter 7). The participants come from a variety of musical backgrounds and music genres, and come from a variety of countries across the world. They also have a range of teaching experience (from probationary year teachers to 32 years in the profession).

The music specialists were either part- or full-time members of staff at the Scottish Conservatoire or were teachers and instructors from mainstream Secondary school music departments. For the purposes of the discussion in this chapter, the data gathered from all

music staff have been analysed together. The views of the Conservatoire and school-based staff have been grouped together and termed as T/I. The term ‘teacher and instructor’ encompasses those who do possess pedagogic training and those who do not. These are used to demonstrate the difference between classroom music and one-to-one lessons. Each questionnaire was identical apart from two questions for mainstream/independent school staff. This concerned their status (classroom teacher or instructor) and the Local Authorities (LAs) in which they are employed. The main intention of the staff questionnaire was to determine how the participants identify and nurture talent in their pupils.

In relation to school-based data, permission was granted from Directors of Education for each LA and the Head Teachers at the identified schools to allow contact with staff. Four LAs were identified across Scotland, chosen because they housed specialist music schools or National Centres of Excellence (NCEs). The LAs represented population size (large urban, small urban, large rural, small rural), with all mainstream and independent schools invited to participate. Details for these were obtained from the 2007 *Scottish Government Pupils in Scotland* census (The Scottish Government 2007). Each Director of Education was contacted by formal letter and via email with the formal letter attached as a word document. Once contact was established, a subsequent email containing the questionnaire was sent to the Director for approval. Once permission was granted, Head Teachers were sent a formal email with a link to review the questionnaire and to forward this onto the Principal Teacher of the Music Department to disseminate among the Music staff. In most cases the staff did not wish to contribute or the response was left to the Head of Music (see Table 9.1).

**Table 9.1: Schools invited to participate in research**

Sector	No. of schools contacted	Yes		No		No response	
		No.	%	No.	%	No.	%
Independent	11	8	72.7%	2	18.2%	1	9.1%
Mainstream	57	9	15.8%	0	-	48	84.2%
Specialist/National Centres of Excellence (NCE)	5	1	20%	0	-	4	80%
<b>Overall totals</b>	<b>73</b>	<b>18</b>	<b>24.7%</b>	<b>2</b>	<b>18.2%</b>	<b>53</b>	<b>72.6%</b>

In total, from the mainstream and independent sector (not including the specialist/NCEs) 57 schools were contacted. 17 Head Teachers gave permission to contact staff, however only 15 members of staff responded. The return rate for the Conservatoire was poor with only five members of staff participating in the study (see Table 9.2).

**Table 9.2: Conservatoire-based Music Teachers/Instructors**

	Contacted	Yes		No		No Response	
Conservatoire Staff	310	5	1.16%	0	0%	305	98.4%

Whereas the school-based and Conservatoire/University data yielded a poor response, the PLCs had a 90% return rate, with eight participants granting a face-to-face interview and one participating electronically. While the data gathered from the T/Is focus on the development and nurturing of musical talent, the PLCs' views supplemented ideas on how to identify musical talent. An important feature of the Programme leaders/course co-ordinator participants is that they are not all from arts-based or musical backgrounds. They represent a variety of educational and arts backgrounds or who are interested and currently (or latterly) work with gifted and talented musicians and young people. The PLCs who participated in this research were termed as 'experts' in their field in that they have longstanding experience of working with children and young people with high ability (see Methodology, chapter 7). These experts had a similar criterion to those of the expert musicians in that they are seen to publish regularly within this research domain, and, in some cases, are (or have been) advisors or heads of programmes within the gifted and talented field. While experts are useful participants for their knowledge and interest in the subject, it is sometimes difficult to protect their anonymity.

All participants' responses have been anonymised. Direct quotations distinguished are number and role, for example, PLC 1 or T/I 1: Conservatoire/School. The responses and quotations have been taken directly from the participants' responses with their own grammar and syntax to ensure that they demonstrate the intended meaning of the viewpoint.

### *Conceptualisation of musical talent*

The T/Is were asked to provide information on the terminology which they use with their students and whether or not the ability level of the student influences their expectations as teachers. The PLCs on the other hand commented on more general aspects of the process rather than music specific issues. As mentioned earlier in this chapter, the participants were asked to consider the benefits of identifying talent and the way(s) in which this would influence their expectations of their students (if at all). As recognised in chapters 1-5, the way in which ability is conceptualised influences the way it is identified and nurtured. Table 9.3 (below) represents how the participants perceived and used the terms ‘gifted’ and ‘talented’.

**Table 9.3: Do you use the terms 'gift' or 'talent'? If not, what terms do you use?**

<b>Programme leaders/course co-ordinators</b>	<b>Conservatoire and Mainstream School Music Teacher/Instructors</b>
<i>Talent; ability; gift; skill; special; intelligence; advanced (learner); bright; (can manage) basic; more able; artist; competent; emerging artist; spectrum of ability; excellence; mastery.</i>	<i>Imaginative; expressive; original; good student; bright; intelligent; sharp.</i>  <i>Able; good musical ear; musical; talented; ability; musicality; don't use it.</i>

There is a degree of similarity between the PLCs and the T/Is, however, it appears that both groups of respondents preferred inclusive terminology which acknowledge and incorporated the abilities of all students. It is interesting to note that the T/Is did not use the term ‘gifted’ but did use ‘talented’. The reluctance to use the term ‘gifted’ was noted by one participant, however it would appear from the responses in other areas by the other T/Is that this reluctance was shared:

*I would prefer to call it natural ability, but even that I think is not ideal as I'm very reluctant to discriminate between pupils in a way that gives them the impression either that they are better than others or that they are innately less talented. (T/I 8: School)*

Another stated that: *“I tell children all the time that talent is a huge gift. It can also become burdensome, but is ultimately rewarding”* (T/I 13: school). The caution of T/Is 8 and 13 were also shared by two PLCs who noted that there is a difficulty for the child in being labelled as gifted. PLC 2 notes that *‘[t]hese labels [gift and talent] come with expectations.’* Similarly, PLC 3 comments

*[I am] less concerned about the words or descriptions, more concerned about teachers accepting that kids do need challenge...Words and labels are important, however come with baggage and schools need to have worked through this so there are shared understandings about what labels mean and how they link to our beliefs about children and learning.*

PLC 3 stresses the notion of multiple narratives and how these may influence the development of talent. The way in which a teacher perceives and defines talent does influence their expectations and strategies for developing a young person. The responses from PLC 2 and PLC 3 stress the extent to which these terms are socially and personally constructed. While some of the T/I participants indicated that they did not share their definitions with their students, it would appear that keeping their expectations of pupils hidden would be a difficult, if not impossible task. This is noted by one PLC, who believes that the identification process can lead to children being ‘creamed off’ too early, leaving other children less encouraged and therefore *“they grow up thinking that they can’t do it”* (PLC 7: school).

Hargreaves and Marshall (2003) believe that a ‘can do’ mindset in pupils can be developed, and they stress the importance of the teacher’s role in encouraging children to adopt this attitude. Encouraging all pupils to develop such an attitude and be involved in musical activities may be one possible reason why the T/Is were less inclined to label children as ‘gifted’ or ‘talented’. By using terms such as ‘imaginative’ and ‘original’ it begins to expand or redefine what could be classed as ‘talented’ behaviour. This is explored in more depth in the next section.

## **Recognising and identifying gift and talent**

The discussion above underlines that the PLCs and T/Is were conscious to avoid labelling their students, preferring to use more inclusive terms. As noted by PLC 3, the ideal situation would be for a shared definition of talent, broadly based. However, such a definitive statement about the nature of musical talent is difficult to obtain. In addition, an individual's conceptualisation of giftedness or talent is a reflection of his/her own beliefs and values.

The PLCs and T/Is were asked for their comments on recognising and identifying ability in their students. The responses associated identification with formal measures such as tests and examinations. Recognition on the other hand, was seen as a more casual approach which occurs through observation and the gathering of information from a number of sources. Overwhelmingly, the preference was for natural, longitudinal observations or multiple nominations as opposed to single tests for identifying giftedness. An additional feature noted by the PLCs was the role of the teacher within the overall recognition and identification process, either as a creator of opportunities or as a source of information to develop the lessons further.

### *Is formal identification necessary?*

Both the T/Is and PLCs were asked for their opinions on formal recognition of ability through testing. For some, testing is controversial in that particular methods or tests may omit or overlook the contributions of some pupils or stigmatise children with labels (as opposed to providing information which can help meet their educational needs). However, the participants did acknowledge that identification may be necessary to provide appropriate challenge in order to meet the individual's learning needs.

As emphasised in chapters 1 and 2, early methods of identifying high ability in children were related to intelligence, and tests of cognitive and intellectual skill were commonplace in the attempt to differentiate the 'gifted' from the 'average' (Winner 1997). However, identifying or recognising musical ability requires more sensitivity than is apparent in a paper and pencil examination; teachers should be encouraged to broaden their own

knowledge on this subject and learn to expect the prospect of high ability in uncharted waters. PLC 3 emphasised this:

*There are a lot of myths surrounding the identification process. Be careful... Identification needs to be open and wide and flexible to a certain degree. When restricted it will miss some groups, those overlooked tend to be from areas of deprivation, double exceptionality, gender, race, looked after...Identification through provision, the better we get at providing the better we'll get at identifying. Can get too hung up with tests and checklists therefore we miss out pupils who are not already demonstrating abilities...offering opportunities to all and seeing what happens, avoiding test and other such instruments.*

Generally, the teachers and instructors felt that identification procedures were sometimes limiting and overlooked the contributions of some children. This was commented on by T/I 8 (School): “*Working with a pupil over a period of time shows up their abilities. It is easy for pupils to slip under the net if they have not opted for instrumental instruction or have gone through a selection procedure that has not recognised their natural ability*”.

While tests and written examinations may be suitable for some fields, there are additional difficulties in recognising and formally identifying musical talent. For example, there may be biological and maturational issues which might not be acknowledged during, or uncovered by, the test or audition:

*I'm always wary and worried that there is too much emphasis on achieving. There are political and economical dimensions here...Practice hours research is needed on part of that work, take for example the 15 year idea, the one [individual] who starts 15 years of practice at [age] 3 will have learned more at 25 [years-of-age] than the person who starts at [age] 10. (PLC 9)*

PLC 7 agreed with this, considering that the interview or test was not an appropriate means of identification, commenting that the process does not allow for

*instinctive qualities to come across. [The child] can become nervous and this affects the process. [It is an] unnatural situation. In an ideal situation (more so with the choirs) I like to see child over a number of weeks. A one off interview doesn't give you the background to the child. (I) Would also supplement this with aural work in school. It should really be teaching then testing, but sometimes in this country [UK] we're sometimes guilty of testing and not teaching. (PLC 7)*

The idea of competitive auditions and tests was a contested area for the PLCs, with many sharing the opinion that “*if admission and decisions were in terms of standards many students would be missed*” (PLC 4). In terms of school-age children, if teachers only taught the gifted and talented, class sizes could be small or classes non-existent in some places. This would therefore support the views of the PLCs in thinking about providing for ability first, with identification of talent coming later (if at all).

For some children, school-based music provision may be their first contact with musical learning. They should be allowed to uncover their musical potential through gaining access to musical experiences and opportunities. This point was acknowledged by PLC 1:

*Basically – you shouldn't test before you've given people the chance to learn what they are being tested on. I have problems with testing for music where you operate as if it was X-Factor and those who already have it can benefit further, whilst those who haven't but might if they'd been in other circumstances are left out and ignored...The process is flawed in many ways...It should be more focussed on getting everyone to have an opportunity to participate, then afterwards work out who wants to carry on.*

This view was shared by two other PLCs. Firstly, PLC 2 who believes that teachers should not focus on formal identification, but should

*[support] all kids to do the best they can. Creating contexts for kids to experience levels of achievement, with an attitude of 'something in it for everyone' (we all have a gift, it's just a matter of finding where it lies). (PLC 2)*

While the views above are against formal identification of talent, the participants understood the need for recognising and acknowledging ability as part of the student-

centred process (shaping provision and catering for specific learning needs). This idea was evident in the responses from the school-based T/Is where the general consensus was that identifying talent in pupils may help them to realise that they have the “*potential to achieve something great*” (T/I 3: School). T/I 8 commented that identifying musical ability in children was useful only when used for “[f]inding strengths to build confidence and enjoyment as well as weaknesses to be worked on [which] helps me [as a teacher] to plan lessons that will stay productive and fun”. Similarly, T/I 7 (school) believed that she felt fulfilment through “*motivat[ing] them [the pupils] further to develop and the joy they [the pupils] have in seeing themselves improve*”. These quotations illustrate a common feature of the T/I responses: that the participants were aware of the need to boost each child’s self-efficacy. The T/Is believed that through encouragement and praise, as well as by rewarding their pupils for their achievements, they could raise pupils’ self-confidence and consequently encourage more children to participate and enjoy musical learning. T/I 10 (School) commented that “*I take them [the pupils] as I see them and encourage them to achieve all they can achieve at any level*”. A similar view was shared by T/I 13 (School) who said: “*I have high expectations of all of my students – it’s their expectations that I try and improve*”. These quotations would suggest that the teachers believed that boosting self-confidence may help promote the development of self-expression and self-expectation, or, arguably, that the teachers are in fact beginning to boost their students’ self-efficacy.

The discussion so far has centred upon catering for pupils’ unique learning needs. However, the notion of teacher expectations was also evident. The majority of the T/Is believed that having a gifted or talented student in their class would be a positive experience for them. Many highlighted that their expectations of these students would be higher than their expectations of other pupils, but they argued that they would encourage all within their tutelage to learn to the best of their ability. Another perspective was noted by PLC 8, who suggested the following:

*No it is not necessary [formal recognition of talent] but it can be a benefit particularly if the child lacks in other parts of curriculum – I have examples of children who had no recognition of the fact that they had a wonderful musical talent until into their teens because of other pressures on them – music was always considered a second class subject that you did if you couldn’t do something more– this is wrong [as] it’s one of the most difficult subjects in the world and that is why a natural talent is such a blessing – Formalising that talent can help the pupil to become more confident and appreciate what they can do more.*

Whereas PLC 8 aligns more with a view of encouraging the child who may have potential or hidden ability (see Winstanley, 2006), the view of T/I 3 (Conservatoire) is aligned more strongly with ideas of developing character and resilience in his students. This tutor noted that if he has a student with the potential to develop further, he shares his expectations with them: *“Students who show significant ability, promise, sometimes I let them know what I think they could aspire to, if I feel they don’t have a full sense of their own worth and potential”*. Similarly, T/I 10 (School) noted that

*Each child/individual on some level needs/wants/craves positive reinforcement. On identifying what it is that an individual is really good at and helping the individual to understand this to be true serves to positively reinforce that individuals experience in the classroom and hopefully beyond...I encourage all of them to fail, but allow the better ones to risk more.*

While ‘encouraging all of them to fail’ can appear to be a harsh statement from a teacher, it would appear that this member of staff wishes to encourage students to learn that they are not invincible but are able to make mistakes and learn from them. There may be merit in creating a learning environment where it is safe to fail and learn constructively.

The important notions of motivation and self-expectation theory are evident in the ideas presented by the interviewee above (see Woolfolk et al. 2007). T/I 10 (School) is acting as an influential source of encouragement as the student works towards achieving self-efficacy. For T/I 3 (Conservatoire), student achievement also brings a feeling of self-fulfilment for the teacher: as the student attains their learning goal, the teacher’s own self-efficacy is developed. Woolfolk et al. (2007:403) states that

*efficacy grows from real success with learners, not just from the moral support or ‘cheerleading’ by mentors and colleagues. Any experience or training that helps people succeed in the day-to-day tasks of teaching will provide a foundation for developing a sense of efficacy in your [teaching] career.*

The views above suggest access to provision and access to opportunity are necessary before formal identification takes place. Formal identification should only be used if it

allows access to a provision appropriate to a learner's needs (for example, to enable access to a specialist institution or to a specialised context to enhance their skills or allow pupils to work with like-minded peers or those who have specialist skills and knowledge).

However there is another layer to the issue of provision. There is an argument that specialist provision should not be restricted to those who are recognised or identified as gifted or talented, but should be available for all pupils to experience. The work of Renzulli (1977) supports the view that an enriching experience should be available to all, as should access to opportunities. In this way, those with potential talent can be discovered and supported. Both Winstanley (2004b) and Renzulli (1977) place emphasis on the need for provision and access to opportunities to encourage hidden abilities to be uncovered.

### *Natural recognition*

The views expressed above underline the view that test situations are not always the ideal means of uncovering ability in young people. While there is value in using test information in order to cater for a child's needs, it would appear from the participants' responses that test results have the potential to be used to exclude individuals from opportunity. As discussed in chapters 1-4, tests are limited and often focus on one or two narrow attributes instead of considering the individual's potential or room for growth. Another negative feature of testing is that it sometimes only highlights known or likely attributes and traits rather than broadening and challenging definitions to include other skills. In chapter 8, some musicians responded that they were "*not gifted in the most obvious of ways*" (Classical Musician 1) therefore, the process of identifying musical talent was one which required 'looking for clues'. Only one participant believed that musical ability was inherited or was the result of belonging to a musical family. Instead of seeing musical gift and talent purely in terms of performing ability, the responses from the musicians suggested that alternative skills or general abilities could be indicators of giftedness.

This view was shared by the PLCs and T/Is, who looked for both musical skills and general attributes (such as hard work, enthusiasm or reliability):

*I look for rhythmic ability, pitch skills and co-ordination levels. I also look out for enthusiasm and reliability. (T/I 8: School)*

*Enthusiasm and playing fluently – good listening skills and coordination. Some pupils display talent quickly – others don't want to show off and only show it at certain times. (T/I 14: School)*

In terms of the Conservatoire staff, one participant considered that he looked for more creative skills which are uncovered and developed through interpersonal experiences as opposed to technique or intrinsic musical qualities:

*I look for imagination – there are some students who are technically amazing, but rather dull as musicians. Music is about communication so I'm looking for good all round people with something to 'say'. Musicians who collaborate well are more interesting to me than those who lock themselves away. (T/I 1: Conservatoire)*

One teacher believed that a means of recognising ability in pupils was through observation. Indeed, observation, usually over long period of time, was a common feature of the responses:

*By listening, watching and treating each pupil as an individual. I strongly believe that every child is absolutely unique and therefore, although my technique that I teach remains the same fundamentally, I have to try and give each pupil the 'basic training' and then see what each individual wants and needs. Only then can I help each pupil and find whatever it is in them that they are looking for. I don't really like the word 'gift' as I feel that it takes the responsibility away from the individual. (T/I 3: School)*

*We play games at audition stage. Timing, clapping, singing, pitch recognition (relative), also physical coordination and general intelligence and ability to grasp new concepts. And **enthusiasm!** most important of all, though sadly not an acceptable substitute for the list above. (T/I 10: School, original emphasis)*

While the earlier responses from some PLCs are negative towards identification of musical talent, competitive auditions and competition are common features of the musical profession. PLC 4 noted that the audition process is multifaceted with numerous specialists

involved. Each member of the panel looks specifically for the young person's potential for development in terms of their instrumental playing or vocal ability. Additionally, test lessons are used to see how the young person responds to tutelage from a specialist to create as 'authentic' a learning experience as possible. The young people who audition for this opportunity are already of a high calibre within the musical context, therefore this audition process looks at both their current status and the potential skills which could be developed through support of a more knowledgeable other.

There is no single means of identifying or recognising talent; identification should rely on a multi-method approach with many people involved and should not be confined to the audition process. There is a need for multiple methods of gathering information from a number of sources in order to assess musical ability. This aspect was commented on by PLC 1:

*There is ground work for worthwhile identification... There has to be acknowledgement that this is a team process. The classroom teacher and the private teacher are required to work together, the class teacher is not solely responsible for the identification or development of the child. Team work is important, it does not just involve the teachers, but a whole host of individuals who work with the child (choir master, church people...) anyone who helps the child along musically (or other) in some way. (PLC 1)*

Central to PLC 1's response is the consciousness of the role of the teacher or guide in the recognition and development process. His view would suggest a holistic approach to developing ability, not purely confined to musical pursuits. This would therefore suggest that the identity of 'teacher' and the role of the teacher in the development process require exploration.

### **Teacher and instructor identity**

In relation to the discussion above, it would appear that identification of musical talent requires effort, and the involvement of many people. In terms of school-based support, two PLCs stated that considerable knowledge is required from teachers in terms of how best to identify and recognise talent. PLC 2 believes that it is the teacher or educator (not necessarily a qualified teacher) who should develop the child's talent based on watching

the child naturally in a normative context. PLC 3 shares this view, believing that it is more about what (classroom) teachers and schools do with the information on the pupil that counts (as opposed to formal testing or identification).

In the earlier quotation from PLC 1, there was a strong emphasis on the role of teamwork in developing and recognising talent in young people. Throughout the interview, PLC 1 noted the importance of teamwork, believing that there should be more dialogue between transition stages (for example, nursery to Primary school, Primary to Secondary, and Secondary to tertiary). PLC 1 considers that a teacher's perception of music and musical learning can influence the educational experience as well as the way in which ability is recognised:

*The Primary/Secondary transition needs to be looked at. Seen as a division – Secondary music teachers view this as 'real' music opportunities as opposed to Primary experiences of music education. (PLC 1)*

This notion of 'real' music between primary teachers and secondary music, the identity of the musician and the music teacher, became a feature of the responses.

One of the main themes to emerge from the data was the role of music in the participants' working lives. As noted earlier in the thesis, definitions and conceptualisations of musical gift and talent are shaped through experiences and cultural values. These constructs provide valuable insight into the behaviours deemed to be desirable by a community (Green 2005b). Through their conceptualisations of musical ability, the music teachers and instructors' values, beliefs and musical identities became apparent. Each of the participants had some degree of musical knowledge or interest, yet some of the participants noted that they were musicians first, teachers second (or vice versa). This influenced how they approached the nurturing of talent in their students, as well as influencing the way in which they perceived talent in others and how they perceived their own abilities:

*I don't consider myself as a music teacher, but as a musician who teaches alongside other musical activities. Teaching started as a way of paying the bills (which the other stuff didn't) but I have always enjoyed it so have carried on...rather than find other things. (T/I 2: Conservatoire)*

*I didn't start out with the intention of being a music teacher, I wanted to be a performer. However, I started teaching to make money and gradually found that I had more ability in teaching than in performing. (T/I 5: School)*

*I knew I wouldn't make it as a performer, and teaching was the next best thing. I like the idea of helping kids to do their best, and almost use music instruction as a type of therapy in some cases. (T/I 9: School)*

These views are important in providing an illustration of music teacher identity, as the way in which the participants perceived themselves musically influenced their views about, and definitions of, musical ability. While some participants appear to teach music for 'fun' and pupil enjoyment, others prefer a more methodical and disciplined approach to development. In addition, the teachers and instructors' views about learning and talent development may be a reflection of their own learning experiences. However, this is a broad issue which is not within the scope of this thesis to explore more fully.

### ***Ambivalent teacher identities***

Across the responses, there is a suggestion of a hierarchy of T/I identity, with musical performance seen as a elevated entity than music teaching. The three staff above appear to have become teachers by default, in other words, they were not 'good' enough to succeed as performers therefore became teachers instead. In a sense, they were more ambivalent about their teacher identities than were some of the other participants. This would suggest that there is a distinction between the identities of those who are secure in their vocation as teachers and those who are more secure in their identities as musicians. The work of both Hargreaves et al. (2003) and Woolfolk et al. (2007) suggest that teacher identity is vitally important in the learning process. The authors stress that self-efficacy is important in the formation of teacher identity. Woolfolk et al. (2007) note that a teacher's self-efficacy relates to the individual's perceptions of their own capabilities as a teacher. It could be said that the teacher who views him/herself more as a musician than as a teacher would be more likely to teach a pupil in the way of a musician relating to another musician, whereas a

teacher who identifies him/herself as a teacher may provide a more classroom-based experience with a stronger focus on pedagogy. Woolfolk et al. (2007) emphasise that identity can shape the way in which teachers engage with their pupils' learning and also can shape the ways in which teachers view the learning outcomes (relating successful outcomes to perseverance and determination). Roberts (1991) considers that there is a tension between the two identities – *teacher as musician* and *musician as teacher* – which may be rooted in the education of teachers. In addition, the research findings of Hargreaves et al. (2003) highlight that the majority (if not all) potential music teachers came from a Classical-based Conservatoire backgrounds, which therefore shape the identity of the teacher in particular ways. The nature of the participants' background may dictate what they consider to be desirable skills for a musician to possess. If an individual considers that they do not possess the appropriate skills (or the 'right' level of skills) they may believe that they not capable of success as musicians. However, given the sense of hierarchy noted above, it could be that they may think they have enough musical skill to teach, rather than to perform professionally. Roberts' (1991) research suggests that the identity of 'music teacher' is culturally and socially bound, constructed and nurtured through the learning experiences at Conservatoires and Universities (Roberts 1991). The way in which the musicians perceive themselves (as musician-teacher or teacher-musician) influences the way in which they approach the development of talent in others.

### *Positive teacher identities*

The opinions of T/I 2 (Conservatoire), 5 and 9 (School) (discussed earlier) were not shared across the other respondents. The majority of the participants loved music and wanted to share their love of music with others, and their identities as teachers could be said to be more secure and positive than the sense of identity expressed by the participants in the preceding section. Several T/Is who were interviewed remarked that they admired their own teachers and wished to emulate them or that their music teachers had opened up their interest to music and they now wished to pass this interest and enthusiasm on to their own students. For example, T/I 14, considered that a musician is both teacher and performer: *"I've always thought that it was an important aspect of being a musician, the ability to teach. I wanted to pass on the skills that I have learned, and, as an instructor I can still find time to perform regularly"* (T/I 14: School).

## Nurturing talent

Participants in this strand were asking to explain how they nurtured musical talent in their students. Participants' views tended to diverge on this issue. For example one participant stated: *"I would have higher expectations of these pupils. However, these can often be disappointed where a pupil has natural ability in playing an instrument, but not in effort or stickability"* (T/I 4: School). However another commented as follows:

*I don't really distinguish between them. They all have some talent but I would advise them as to the most likely limitations of their abilities, i.e. whether they could pass Higher Music, whether they could study music at University or at the RSAMD [Royal Scottish Academy of Music and Drama] etc.* (T/I 14: School)

Conservatoire staff, such as this participant, considered themselves to nurture all students' abilities. One member of staff commented that they: *"make opportunities for students to discover what they can do"* (T/I 4: Conservatoire). It could be argued that the expectations of the teachers and instructors at a University or Music-dedicated institution would be different from those in a mainstream school in that they would be more focussed on aiding the student to become one of the national and international elite. Also, the students at the Universities and Conservatoire have successfully passed a competitive audition process and attained a place on a programme specific to their learning needs. In a school-based learning context a class teacher or school instructor may have multiple pupils who do not possess the 'stickability' or desire to become professional or accomplished musicians or wish to engage in music at any level. Similarly, they are also more likely to have wider ranges of both ability and interest in the one room.

The schoolteachers' focus tended to be different from the teachers at the Conservatoire. One schoolteacher stated that their main role was *"...tuning into the pupil, and guiding them towards a realisation of what they are capable of"* (T/I 5: School). Another commented: *"I believe that much of what we absorb as pupils or teachers is done almost unconsciously. I try to play to pupils frequently so that they understand musical concepts in an intuitive way"* (T/I 2: School). Green's (2005a) approach accentuates that effective musical learning depends, in part, on modelling methods (usually associated with Traditional and Pop/Jazz music). This modelling experience adds another dimension to the process of nurturing in that learning and knowledge can be gained from older and/or more

knowledgeable peers in addition to providing enculturating experiences that can help to shape the individual's learning experience and musical identity. Of relevance here is Bandura's (1982) view of modelling (as discussed in chapter 8), whereby the individual learns from seeing others attempt tasks. Nurturing talent may, then, involve a significant amount of modelling which is explicitly aimed at supporting understanding of musical culture and valued behaviours within this culture, as well as the modelling of core musical skills.

While the expectations and demands of students may differ because of the level of talent they are perceived to possess, all teachers and instructors noted the importance of encouragement and support in the development process to assist *all* students to progress as much as possible or to persevere in the current task. One stated: "*All of my students are encouraged and nurtured to produce the best they can*" (T/I 12: School). The teachers and instructors utilised different strategies for each student with the main aim of encouraging them to achieve to the best of their ability. While the level of musical ability or interest seen from some pupils in school may be minimal, the staff attempted to maintain a teaching approach that might heighten the young person's musical enjoyment and appreciation (as opposed to teaching them to pass exams or attain targets in a syllabus). There was consideration of differentiation, with perhaps the best summary coming from T/I 3 (School) who commented:

*We must be realistic with pupils who may actually be able to become musicians. I explain often about the amount of boring stuff that has to be done, and the skills needed by working musicians in the real world. Most often, unless the pupil expresses an interest in a musical career, I advise them just to play for fun. If we're preparing for a university audition there's a lot more drudgery and I have to explain the necessity of it.*

Additional development strategies were recorded particularly for school-age pupils. Several school T/Is commented that they liaise with parents to discuss how they can encourage the pupil to develop. Others encourage notation – "*including [the] guitarists*" (T/I 11: School) - and involvement in wider musical activities that "*do not restrict their learning*" (T/I 9: School). The latter was an extremely popular view, with the staff

considering that a wider exposure to musical activities and opportunities furthered the learning experience for their student.

All PLCs responded to the questions on nurturing talent in young people. Although half were not musically trained, their comments provided more general information from gifted and talented literature. Their responses almost appear to be ideological or to align with what they would expect from an ideal, constructive development. The participants felt that they formed personal ideologies based on what they perceived as common-sense views of their learning. However the participants did note that it takes a great deal of preparation in order to ensure that opportunities are created:

*Ideal would be a multilevel environment, where excellence exists alongside growing excellence. The material used would be appropriate to the child's level to allow them to achieve and develop. The child can learn from the multilevel environment, for example the bass guitar player who can only play two notes in the same environment as a Grade 8 violinist and vice versa. A multilevel environment requires a competent teacher who is able to prepare and cope with many levels of ability. (PLC 1)*

*[it is about developing a] broad interest level. Listening at all times to music, nursery rhymes, etc. As broad and varied a type to absorb. It's similar to food, ensuring that you have covered enough aspects to help a healthy lifestyle. Early exposure and seeing it as routine. Aware of reading and understanding stories, pictures, play all help to stimulate the imagination. (PLC 4)*

*Quality of training and people who can deliver that quality training is essential. Providing opportunity and professional opportunity that will stretch and challenge. Only really the best can do this. Nurturing talent by (1) involving and inviting the emerging artists or talented to work with the best talent that you can get (2) exposure, exposure to experience of the art form, not just one portion. Exposure to libretto, costumes etc. (PLC 6)*

*Get the child involved in a choir or music group where they are learning and watching all the time. (PLC 8)*

It would appear that exposure to opportunity and effective learner support is necessary to a successful talent development process. Each of the four PLCs' views above shows different aspects of involvement. For example, PLC 1's preference for mixed ability and peer learning is shared by PLC 8. Similarly, PLC 6's ideas about providing enriching experiences (through learning about the 'behind the scenes' aspects of music) relate to the ideas of Renzulli and his enrichment models, whereby the child is able to engage with professionals in the field and explore the 'real-life' context (Renzulli 1977).

The PLCs' views of opportunity and the advantages of multi-ability level contexts are shared with those of the T/Is (above). However, it could be argued that the PLCs would consider any form of opportunity to be involved and absorb music as enriching and useful for development. Once again, this bears resemblance to the work of both Stollery and McPhee (2002) and McPhee et al. (2005). In both papers, the authors stress the importance of enhancing and intrinsically motivating experiences for students, noting the role of the teacher and the need for multiple forms of support and encouragement within this. Further connections to literature are evident with the concept of challenge and the concept of 'stretching' the more able. Winstanley (2007) argues that appropriate challenge should ignite and maintain a child's interest(s). Perhaps of the four quotations, PLC 4's is of greatest interest. His response bears resemblance to that of Pop/Jazz Musician 11 in chapter 8. For Pop/Jazz Musician 11, music was more natural than walking or breathing. For PLC 4, music is like food, something which, although routine, is required for nurture and is a necessity.

From the responses discussed in this section, nurture is not spoken of by the participants solely in terms of the development of technical skills and abilities in young musicians. For the participants, nurturing talent necessitates a far wider approach to learning. Whereas the research of Gagné (2004) emphasised the role of extrinsic opportunities, the views of the PLCs and T/Is discussed in this section help to add detail to what constitutes and 'ideal' extrinsic opportunity. The environment for learning should be, according to the participants in this research, one which enables young people of mixed ability to work together. It should also encourage learning through modelling and observation of performance, writing and listening activities. Green (2008) and Bandura (1982) both point out the importance of observation and modelling in their research. In terms of modelling,

Green's (2008) work refers to the social issues relating to musical development. She notes that school-based learning is sometimes remote from the child's own musical preferences and prior experiences and therefore may limit the development process. However, classroom experiences may provide opportunities for vicarious experiences which build self-efficacy (Bandura 1982) thereby encouraging children to develop coping strategies to help them meet challenges. Although children react to different experiences in unique ways, this does not mean that exposure and access to experiences should not be provided. These experiences and opportunities can ignite hidden interests, but should be developed in ways which are inclusive of a range of children's abilities and prior experiences of music.

A key feature of this section has been discussion of the role of the 'teacher'. As considered at numerous stages within this chapter, the 'teacher' can have a formal role (from private or school-based tuition) or be an informal mentor. The important statement underlying the responses from the participants is that there is no single teaching role or context which ensures successful musical development. Instead, team work and the gathering of a combination of perspectives from an assortment of people and contexts provides a more holistic approach which might best support musical development.

### **Analysis and conclusion**

Although small in number, the contributions of the PLCs and T/Is form an additional layer of insight into the development of musical talent. The T/Is noted the importance of opening doors during the development process. The school-based staff reflected upon their own experiences of music lessons and tried to emulate their tutors and assist their pupils to feel the same joy as they gained from their own lessons. On the other hand, some Conservatoire staff inferred that there was a hierarchy of status within the music profession, with teaching being thought of as being somehow of less value than performance. As noted earlier – and supported by the research of Woolfolk et al. (2007) – this perception of hierarchy can influence (either subconsciously or consciously) the way in which the teacher instructs and develops the child. Many of the teachers and instructors aimed to provide a student-centred experience, which was inclusive - to encourage all pupils to participate to the best of their ability - but with higher expectations for those whom they perceived as being more able.

The student-centred approach was shared by the PLCs. Interestingly, all participants were of the opinion that musical talent could be developed over time, with few mentioning the innateness of ability. Whereas the T/Is were music specialists, many of the PLCs did not have a musical or arts-based background. However they did have extensive experience of engaging with people considered to be talented. The PLCs, unlike the teachers and instructors, focussed on the 'rights' and 'wrongs' of formal identification by test. A consensus regarding testing was seen across the responses: firstly that testing should be supplemented with additional data; secondly, that provision should be provided before testing; finally, that any formal means of identification should be used only when it allows an individual to gain access to specialist help and guidance to suit their individual needs. The preference was instead for recognition of ability in normative contexts as opposed to in examinations.

## 10 Potential professionals: Conservatoire and University Students

This chapter focuses upon the experiences of music students (n=66) studying at a Conservatoire and a University in Scotland. As documented previously, the original intention of the thesis was for only the Conservatoire students to participate. However, the option of electronic participation and the low response rate from the Conservatoire led to other University music students (C/US) being invited to participate. For ease of discussion, the two groups of students (Conservatoire and University-based) have been amalgamated and their responses contribute to Empirical Strand 3. In order to explore the concepts of gift and talent, the students were asked to consider their own musical learning, and were invited to comment on the experiences and opportunities available to them during their musical development. Many of the views expressed are similar to those of participants in earlier chapters, with the students recalling family, peers and school as influential sources (both enhancing and delimiting in nature) during their musical development. Interestingly, unlike the professional musicians in chapter 8, the participants did not discuss the characteristics of the teacher or a significant ‘other’, but discussed more the need for opportunity either to perform or to absorb others performing. This chapter will reflect on the students’ conceptualisation of musical talent before discussing the contexts of talent development in more depth, specifically focussing on family involvement, school-based provision and wider experiences.

In total, 66 students contributed to this study. Approximately 466 students were invited to contribute to this study via class email. It is difficult to gather an exact number as the level of student uptake on courses fluctuates throughout the academic session. As can be seen in Table 10.1, 66 responses were obtained from both the Conservatoire and the University representing a return rate of approximately 14%.

**Table 10.1: Conservatoire and University-based Student participation**

Group	Contacted	Yes		No		No Response	
		Count	Percentage	Count	Percentage	Count	Percentage
Conservatoire and University Music Students	c.466	66	14%	0	0%	401	86%

Table 10.2 represents the participants' level of study, with both Undergraduate (UG) and Postgraduate (PG) students at the University and Conservatoire contributing. Of the 66 students who took part in the research, 63 (95.5%) contributed a response to this question. A number of participating students, both UG and PG, have previous qualifications from colleges, Universities and specialist music institutions worldwide.

**Table 10.2: Conservatoire and University-based programme of study (in relation to the 63 students who answered this question)**

Group	Undergraduate course		Postgraduate course	
	Count	Percentage	Count	Percentage
Conservatoire and University Music Students	54	85.7%	9	14.3%

The questionnaire for the students was placed online to allow for easier access by participants. The questions aimed to uncover when the students began their musical learning or involvement in musical activities and the experiences of their development to date. In particular, the questions asked the participants to discuss instances in their learning which they considered to be important to their musical development. As can be seen in Table 10.2 (above), both UG and PG students responded and the learning experiences and discussions solicited from the responses were rich with narrative data. In order to discuss the responses in more detail the next section of the chapter will look at the following main areas: conceptualisations of musical talent and talent development, and teaching contexts for talent development.

### **Conceptualisations of musical talent**

The Conservatoire/University students were asked to conceptualise what they believed the talented musician to be and to state whether or not they believed themselves to be gifted or

talented. Responses ranged from ‘yes’ students believed they possessed talent, to more equivocal responses such as “*I do think that I am musically talented but I am not someone who boasts about it. I like to keep it to myself*” (C/US 46). The responses illustrated an assortment of both general and music-specific attributes which the students thought a musically talented individual should possess. Students were also asked if they believed that they were on the path to possessing such attributes.

It would appear that many of the students believed themselves to be talented, noting what they considered to be a natural attraction to, interest in, and ease with, musical learning (in addition to the hard work involved in their development). Singers considered themselves to have a more natural talent in that their voices are innate within them:

*I may not be as musically talented as some other people, but being able to sing is something very special as it comes from within yourself. Singers are born with this talent. There is no denying it. (C/US 35).*

According to the instrumentalists, ease in performance or becoming a multi-instrumentalist is an indicator of musical ability:

*I can play a large number of instruments and have fairly good sight reading skills. I can also conduct well. (C/US 14).*

*[I have] a good ear and pitch. [I am] able to pick up new instruments quickly. (C/US 4).*

The conceptualisations of the students are useful in providing insight into what they considered necessary for musical development or desirable behaviours which they would like to attain, for example, those who indicated that they were performers tended to view the musically talented as multi-instrumentalists and able to learn instruments quickly. Similarly those who made reference to themselves as singers tended to look for natural tone, resonance, warmth and pitch in the voice. Both groups looked for ease in performing. Conductors and composers looked for all-round musicianship – such as ability to be an accompanist, being responsive to style, and being knowledgeable of music as a whole.

As seen in Table 10.3 below, the students' conceptualisations would suggest that musical talent is a combination of both music-specific and general skills.

**Table 10.3: Students' conceptualisation of the gifted/talented musician**

	What skills would you expect a gifted/talented musician to have?
<b>Music-specific skills</b>	<i>Sight read easily; sharing with audience; understanding audience; wider understanding/knowledge of music; expressive playing; aural skills ("good ear"); virtuosity; sense of rhythm; good theoretical knowledge; scales; score-reading; compositional skills; conducting skills; technical accuracy; passion and love of music; musical interpretation; practice; professional and polished end products; effortless technique; tone; mastery of instrument/voice.</i>
<b>General skills</b>	<i>Conscientious; unique; confidence; fluent; enthusiasm; trust; people skills/communication skills; belief; patience; stamina; inspired/inspirational; drive and motivation; perseverance, work ethic.</i>

The next section of this chapter will look these features in more detail.

### *Music-specific skills*

The responses from the students suggest that musical talent is not a single attribute. Instead, their conceptualisations lean towards a view of talent as a number of different skills (for example pitch, aural skills, rhythm and multi-instrumentalism). While reference was made towards naturalness and ease in playing and performance, the overall consensus from the participants is that musical skills and musical talent is developed through hard work and dedication (or - as C/US 43 noted - through "*perseverance*"). The students also noted that they did not consider themselves to be talented but instead noted that they "*worked very hard*" (C/US 22) to be at their current stage of ability:

*People never told me I 'must' sing. I've only started to be told that sort of thing recently after years of work. 'Talent' implies something that you're born with. I grew up around music so I inherited a lot of knowledge and experience. (C/US 22)*

Some students did not like to discuss self-perceptions of their own ability:

*I do not believe in talent. People say I'm talented but I just think that it's love of a subject that makes you inspired to do [the] majority of it. (C/US 50)*

Some of the participants believed that they did possess musical ability, but stated that they had been accepted into their institutions by chance:

*Umm, I don't know [if I'm gifted or talented]. I like music. I feel it. But my aural skills are c\*\*p sometimes. (C/US 31)*

*[Am I gifted or talented?] not at all. I have no confidence whatsoever on the trumpet and consider myself extremely lucky to be at [name of institution] by such a massive fluke. (C/US 45)*

The responses from the students above are similar to those of the musicians in chapter 8 whereby they acknowledge the role of chance as well as the necessity of their own hard work.

### *Communication*

Music-specific attributes were commented on frequently by the students, however, the role of communication was also considered as an important factor. The students believed that the talented musician should be able to express and re-interpret a piece using their own style rather than reproduce the notes on the page:

*I think talent is in loving the music, having a passion for it, and having a natural style and sense of performance. Technical skill is not necessarily evident but the drive to improve often makes it follow very soon. (C/US 21)*

*Able to give good performance and entertain. Compose new innovative pieces, not copying anything done before. (C/US 63)*

Evident in the responses from Students 21 and 63 is the need to balance musicianship and musical skills with other aspects such as originality and communication. As Student 31 states, a talented musician must convey a “*sense of performance*”: that is, the ability to share musical meaning with others. Some students elaborated further:

*Great technique on [an] instrument but more importantly the music the[y] (the musician) put into the tunes themselves. It has to come from the individual – to put your own style on the tunes you play. (C/US 5).*

*Lots of people can sufficiently play notes but I think my invested interest in the music itself as well as how music moves me and how I can move other people with music that I perform has to be a sign of talent. (C/US 52).*

*[m]ost important, an urge/compulsion to communicate, rather than just display skill; to engage the audience rather than just showing a piece. A great musician makes the audience feel they are essential to this performance, because they are. (When I see/hear a great performer I think of this quality as a kind of generosity). Technical ability is obviously essential, but beyond a certain level I think it's less important than communication. (C/US 4)*

For this group of developing musicians technique and other musical aptitudes such as pitch and tone are important but the talented musician also requires more general skills such as the ability to communicate or organisational skills. The conceptualisations discussed also would suggest that these more general skills are largely natural suggesting that these are like a behavioural or personality trait of the individual. Unlike the discussions of their musical skills, the students do not indicate fully if they consider that these behavioural or personality traits can be developed through practise.

### **Contexts for talent development**

Another important issue shown in the responses is the variety of opportunities and experiences the students were involved in which allowed them to develop their musical talent. Very few comment on their current experiences at University or the Conservatoire, but discuss their early/family, school/private tuition and wider experiences. Key contexts for learning will be discussed below.

## Family

Many students noted the family as one of the main driving features of their development, although the influence of family had both enhancing and delimiting elements.

**Table 10.4: Family Involvement in students' learning**

	Number of students	%
<b>Yes</b>	38	57.6
<b>No</b>	25	37.9
<b>NR</b>	3	4.5

As seen in Table 10.4 above, 38 students (57.6%) consider that they came from a 'musical' background, with family member(s) involved in musical pursuits and considered to have ignited their musical interest. 25 (37.9%) of the participating students consider themselves as musical 'pioneers' in their families, with 3 (4.5%) offering no response.

Interestingly, the 25 students who did not come from musical families were the first group of all participating sources to mention that they were able to realise their own ability through their love and interest in music and through their desire to learn more. Examples of recognising ability included picking tunes out by ear on the keyboard or piano, an increased awareness of, and interest in, music and musical experiences through concerts, family and friends. Two students pointed out that

*I was not pushed to learn music by my family at all. I had lots of music books lying around the house because my mum played the piano at the time so I picked these up and tried them out. (C/US 57)*

*When I got to about 14/15 I feel that music became totally intrinsic for me. I WANTED to learn and progress as much as I could. I started piano from scratch in 4<sup>th</sup> year and by the end of 6<sup>th</sup> year I had achieved grade 5 piano exam. So I guess I am trying to say I think I nurtured myself. (C/US 66)*

Those whose families also had a musical background also experienced parental involvement that was both enhancing and delimiting.

*My family encouraged me to take lessons and my mum made sure she was always on hand to help with any difficulties I had. They always come to support me at any concerts I do. (C/US 29)*

*Very much; my father partly wanted to be a musician rather than/together with the other profession he was in, so he considered music very important. He was very active, organising amateur orchestras (and forming chamber groups who played in the house), so I constantly met other musicians. (C/US 6)*

C/US 6 continued:

*That the fact of having a musician parent has actually made my own musical journey quite difficult, though it may have supported me as well. It can be hard to find your own musical voice when there is a loud parental one always in your ear. (C/US 6)*

The level of parental and family involvement differed across the student group. Other participants noted that their families were more oblivious to the hard work and dedication required to become a musician:

*Two extremes! On one hand playing with my siblings was a huge influence. On the other, the talent of my brothers and sisters made it feel a bit pointless and my parents forced us to perform against our will (we were not very obliging!) What is difficult now is that I don't feel my family really want to listen to the kind of music I am working on and I never felt that I was providing anyone with a treat to be listening to me performing. My parents would always support me but not necessarily understand what I was trying to do. (C/US 51)*

*My family didn't like me practising at home and were never that bothered and thought it was just a fad. They were also very sceptical when I applied for music degrees as well. (C/US 7)*

*[I was e]ncouraged to sing informally as a 'party piece'. Coming from a working-class background, there was a distinct lack of work ethic - I wasn't encouraged/made to practice. I'm not explaining well... Seeing as both my parents were amusical, they perhaps didn't appreciate the necessity of regular and productive practice. (C/US 50)*

The role of the family in shaping the musical interests of young children is multifarious, encompassing values and beliefs regarding musical ability to financial assistance and emotional support (Howe & Sloboda 1991a). Many students belonged to a 'musical' family (a family with performance-based experiences) but those whose families were not musical did not think this had impeded their development. Several students did comment on feeling that they had missed out on music in their early years.

In addition to family-based contributions, the students also acknowledged wider influences from peers and community. While some of the experiences described appear to be delimiting in nature they form the basis of a transformational experience for the student. In other words, the musician has still succeeded in spite of the deficit. One student passed comment on her development experiences as being of a delimiting nature in her younger years, but said the experience evolved over time to become enhancing in nature:

*[My experiences were] mixed. I sang in a rock band, messed about on the keyboard and fiddled away on the viola but on the whole I never felt that I was doing anything very musical. I am from [a rural part of the UK] and there was very little provision or acceptance for the kind of music I loved. When I was composing or singing with myself I was happiest...When I went to Edinburgh I took off! At last I was free from the narrow-mindedness...I started getting singing lessons and learning from great tutors. I did loads of voluntary youth work which I love and really lived my dream for two years. I played piano for a primary school choir, did private teaching, did recitals with my church organist who I was great friends with, and toured round schools with a group of fellow students giving concerts. Towards the end of my time in Edinburgh I had one of my choral compositions performed and my dream really had come true! (C/US 39)*

The issue seems to have been that lack of provision (as opposed to teacher behaviour or lack of individual effort) which led to a delimiting experience. This experience transformed when the student left to study in another area of the country: she then had the opportunity to make the most of the new experiences on offer. As noted by Gladwell (2008), it is not innate talent which is extraordinary but the extraordinary opportunities on offer and how the individual responds to these that make a difference for successful individuals.

## Teaching contexts

The participants noted the importance of various teaching contexts for music learning. This section will discuss the following: school-based provision, education structures, wider school activities, the role of specialist music schools and private tuition.

### *School-based provision*

As with family experiences, quality of school-based provision was varied:

*...guidance through SG [Standard Grade]/H [Higher]/AH [Advanced Higher] music and encouragement to take part in competitions and various school productions and services...[They]recognised my passion by awarding me a trophy for my musical ability and passion for the subject and department. (C/US 25)*

*My viola teacher in High School was great as she was a real musician but I never practised really! The High School in [location of school] as I mentioned did not have much to offer but there was one great teacher there... The problem was, everyone did music and she didn't have the time to concentrate on individuals. I was bullied very badly at school and this shattered my confidence but I think also increased my love of expression. (C/US 57, original grammar)*

*They [music lessons and teachers] did not seem important from the ages of 13-16, but as I went into 5th and 6th year of high school, I decided that I wanted to pursue my singing. So music lessons became much more important for me because I wanted to be the best I could be. (C/US 14)*

*They [music teachers] showed me a variety of different instruments and helped me develop my skills on them, in school I was one of the best percussionists so I played with all the ensembles playing different instruments with different repertoire. This was encouraging as I felt that my skills were needed and I felt flattered and enjoyed the company of the other musicians who all shared the same passion for music as I. (C/US 10)*

Other participants considered school-based musical experiences to be less positive in nature, relying on experiences outside of school to develop their talent. Green (2005a) recognises that there is a difference between the musical learning of pupils in class and those outwith the classroom. She notes that these experiences are both shaped by pupils' own experiences and perceptions of music and the relevance which the musical classroom has for them (Green 2005a). Green (2002; 2005a) considers that there is sometimes a division between the learning needs and goals of the teacher and those the pupil feels are relevant. This divide can cause the pupils to feel distant from the music classroom. Green notes that

*Music teachers' classroom approaches are closer to the conventional pedagogy associated with Western classical music than the wide variety of musics in the curriculum might seem to imply, and are generally very different indeed from the self-teaching and group informal learning practices of popular and other vernacular musicians. (Green 2002:183)*

Green emphasises that children can become confused between their classroom experiences and their knowledge of popular music where some rock, pop and hip hop musicians gain success without any formal music education (Green 2005a). These genres, she believes, transmit values that “the music is a direct, unmediated and authentic expression of feeling, untrammelled by the dictates of convention, and arising naturally from the ‘soul’ of the musicians” (Green 2005a:19).

The role of the teacher was also noted on by many of the participants, particularly in relation to school provision:

*I was very lucky to have good private teachers who enabled me to develop very well. School music teachers were less important but we did have one music teacher who joined our secondary school that completely rejuvenated the school music which probably helped keep me enthusiastic. (C/US 16)*

*One music teacher was fabulous, like a mentor to me and I felt he encouraged me the most and helped me try new things, pushed me forward and helped me the most. When he left the school the department was a shambles and school shows and trips stopped so this shows what a difference one teacher makes!! (C/US 28)*

Each student remarked that they were involved in some form of musical activity throughout their school education (see Table 10.5 below).

**Table 10.5: Student involvement in School musical activities**

	Number of students	%
<b>Yes</b>	59	89.46
<b>No</b>	4	6.1
<b>NR</b>	3	4.5

One of the largest areas of disdain for the participants was the way in which school provision did not recognise or accommodate their learning needs and interests. Several students mentioned that they found the activities on offer (such as bands and choirs) to be mundane and operating at low ability levels. One participant noted that a temperamental teacher contributed to the poor experience. This was one of few references made about teacher characteristics.

### *Education structures*

Three students passed observations on the education framework itself:

*I feel that there should have been more music in my life in primary school. Only at P5 did I get the chance to play an instrument and that was the only music I had. This was before 5-14 when music did not need to be part of the curriculum. If I had been exposed to music at a very early age, I feel I could have been more talented now. (C/US 65)*

*Learning music (especially at school) is inhibited by the need to play two instruments at a certain high level. Many students find this challenging and off-putting. (C/US 62)*

*Something that did not contribute to my development in the slightest was the listening test in the NQs [National Qualifications]. I got through these through logical deduction and good guesses. It was only later when I started to listen to Classical music for enjoyment that I learned how to 'listen'... (C/US 66)*

Education structures can themselves be barriers to learning rather than the actual teacher. C/US 66's response would imply that the current educational structure does not encourage the development of musicality or musical expression. In their study, McPhee et al. (2005) state that while support and encouragement are required for musical talent development, so too is access to opportunity and resources.

As indicated earlier, the students' views tend to align with Winstanley's (2004b) theory that children should be provided with development opportunities within their mandatory education, without having to finance additional support themselves. Her view is indicative of a needs-based approach where all children should be provided with appropriate challenges that catered for their individual development needs.

As part of their educational experiences, all of the participants had been involved in additional experiences outside of the school system such as Associated Board of Music examinations which they were likely to have funded themselves (see Table 10.6).

**Table 10.6: C/USs who have sat external musical examinations**

	Number of students	%
<b>Yes</b>	54	81.8
<b>No</b>	10	15.2
<b>NR</b>	2	3

The issue of having to access additional provision relates to Winstanley's work (discussed earlier in chapter 4) which stresses the difficulty of what she terms as 'inequity inequality' and the notion that provision for the talented child may be perceived by the wider population as elitist or as an additional privilege for the already privileged (Winstanley 2006). This raises an important issue, one which has historical roots, dating to the Victorian era. Since the 19<sup>th</sup> century, music has been perceived as a culturally refined subject available to only those with the appropriate financial resources or those who have innate musical ability (see Plummeridge, 2001). This perceived social hierarchy of music is interesting, as music is one of the most accessed media for young people outwith school (Green 2005a). This would suggest that there is a misalignment between school music and the music outwith school, an evident thought which was apparent in many responses gathered from the students.

#### *Wider school activities*

While delimiting features have been discussed in this section, the students did acknowledge that school had some enhancing qualities. One participant remarked that:

*They encouraged a very fun side of my musical development. Instead of working on my own towards an exam, etc, I was able to work as part of a team producing and performing music. (C/US 17)*

Similar views were expressed by other students:

*I would never have sung in a choir if I hadn't been forced into it at school (I thought it was "sad"). I also felt that I had a teacher who believed in me and so I wanted to impress him! We were also taken to lots of concerts/musicals and put on concerts at school which broadened my musical knowledge and got me interest in many types of music. (C/US 19)*

*I was encouraged to sing alone at assemblies. This did encourage me because I felt special! (C/US 30)*

*Joining school choir gave me the opportunity to begin to understand harmony in terms of individual lines, and to develop a sense of group effort in ensemble work. (C/US 62)*

*School band and youth orchestra was THE thing that made me play. (C/US 37, original emphasis)*

*Very much so; wind band, steel drum band, classroom bands. These provided the necessary performing experiences that define and consolidate musical skills. (C/US 65)*

Each view above is important in illustrating the many positives of school-based music provision and what young people may gain from accessing such experiences. The view of C/US 19 is interesting; with the participant noting that she was 'forced' into joining the choir, but had the support and encouragement of a teacher to create a worthwhile experience.

### ***Specialist music schools and private tuition***

From the responses of the students, it is clear that mandatory school education may not have necessarily provided the appropriate experiences for the students' musical development. For some, classroom music lessons and school-based instruction ignited interest and encouraged development through a wealth of activities. For others there was a

poor relationship between the curricular demands and the learner's needs and interests. This is not necessarily linked to resources, but appears to be more the relationships in the contexts where learning occurs. As can be seen in Table 10.7 below, 13.6% of the respondents attended specialist Junior music schools in order to enhance their development further.

**Table 10.7: C/USs who attended specialist Junior Music schools**

	Number of students	%
<b>Yes</b>	9	13.6
<b>No</b>	52	78.8
<b>NR</b>	5	7.6

The amount of opportunity at school was dependent on the resources available and the willingness and ability of the teachers to construct experiences which encourage the student to develop.

After analysing the responses, it would appear that for many of the students mandatory school music provision was not enough, with additional opportunities and experiences sought for development at either specialist Junior music schools (Table 10.7 above) or through private lessons (Table 10.8).

**Table 10.8: C/USs who had private tuition**

	<b>Yes</b>		<b>No</b>		<b>NR</b>	
<b>Conservatoire and University Students</b>	51	77.3%	8	12.1%	7	10.6%

Table 10.8 underlines that for at least 75% of the participants private tuition was necessary. In terms of this thesis, a formal lesson is a lesson with a private tutor aiming towards achievement of a certificate or a pass in a graded exam. These participants remarked on the importance of these formal lessons commenting that such lessons with a knowledgeable and professional musician provide a foundation in theory and guidance through structure. As noted by Howe and Sloboda (1991b), music students tend to have two teachers for at least one of their instruments – one in school and the other a private tutor. A consensus among the respondents was that if it were not for private lessons, “*then I would not be where I am today*” (C/US 24). One student stated that formal lessons provide a structure and framework for development:

*Without formal music lessons, there would be a lot of kids “just messing about” with sound. Which for some may lead to great things if spotted but if not spotted and focussed into lessons then wasted. (C/US 19)*

Another felt that they sparked an interest and love of music:

*I think they were very important. I got so much out of lessons and loved them to pieces! I really loved practising and I think if I didn't have a lesson to learn things for I would have got bored. I might only have kept music on as a hobby. It just happens that I begged my parents for lessons. (C/US 52)*

This view from C/US 52 was shared by another participant who obtained formal lessons on several instruments from age 10, using the previous experiences and feeling of enjoyment from his/her instruments as a basis to learn more about music.

Similarly, another respondent considered her teacher to be a strong inspiration who set benchmarks and standards to inspire her pupils to achieve:

*My piano teacher was an utter legend. She was never very nice but she'd play things and go: if you want to play that in a month's time. Work. And it tended to work! (C/US 11, original grammar)*

One student did consider that formal/private tuition was not important, largely because of the rich experiences on offer in their social and family life:

*I hated piano lessons, had an evil viola teacher (when I was younger) and never had any singing lessons. I got most of my musical experience by improvising harmonies in church, playing with my family (there are seven of us – all musical) and improvising on the piano, writing songs etc. (C/US 50)*

Although C/US 50 had an unpleasant experience with his/her private tutor, many students felt that private tuition and experience outwith school were opportunities to impart knowledge and develop technical skill and a means to counteract school music sometimes regarded as “*too basic for me and held me back. I suppose I learnt to help others who were having problems*” (C/US 59). Two other participants noted a similar view:

*They [school music lessons] were very important. However, at secondary school they were not enough to let me develop to the standard I wanted or was capable of being...[school music provision] gave me grounding but also a lot of hang ups. (C/US 27)*

*[I lacked] a mentor and a really inspiring, wise teacher...They should have been much better. The poor lessons I received at school still cause problems. (C/US 9)*

The ‘need’ to work with a specialist and more expert teacher was shared across a number of participants, with many students travelling to ensure that their needs were met, or using their own time at the weekends to engage with more knowledgeable others:

*I think that any lesson from a good teacher of your particular instrument is vital, and it certainly spurred me on to better things. I was particularly influenced by my sax teacher at the Saturday morning centre, because he knew what he was talking about, and would always give me the best advice. I think that without some sort of influence or inspiration it’s hard to get very far in music. (C/US 37)*

Reference to private tuition could be seen as predictable as the majority of the students involved are from a Classical background rather than Pop/Jazz or Traditional genres.

Green (2008) notes that within certain musical genres, particularly the Pop/Jazz and Traditional, the ‘teacher’ does not require specialist training but can be an informal mentor, peer or audio recording which acts to spark the interest of the individual through modelling. This is supported by Conservatoire/University 61 who believes that the most important feature of his development was “*working as a professional before uni*” gaining wider experience from a ‘real’ context.

A similar view was expressed by another student:

*Traditional rigour – I am in my fourth year of music and still don't know harmony, and my aural skills are, if not poor, certainly not developed. Singing lessons would have been wonderful from an early age, as would piano lessons. Ensemble playing, with an awareness of the demands of playing in a group. (C/US 27)*

The notion of the ‘real’ and authentic learning experience also resonates with the work of Renzulli (1981). However for Renzulli children learn more from experts and specialists within that particular interest field as opposed the knowledgeable mentor role of outlined by Green. Regardless of the differing opinions of these researchers, each view – and that of C/US 61 – would suggest that gaining experience and opportunity to absorb the musical culture provides a potential foundation for musical development.

### **Analysis and conclusion**

The views of the C/USs discussed in this chapter represent the current developing elite talent in Scotland. The responses of the students also bore resemblance to the successful musicians in the modesty expressed in their answers and also in emphasising the work ethic required to develop and maintain their ability. The notion of ‘sharing’ resonates with views of Traditional Musicians 1 and 3 in chapter 8 of generous performers, sharing music which they were passionate about. The students’ conceptualisations also resembled those of the musicians in chapter 8 in that they did not believe musical talent is purely related to performance or technical attributes. Instead the students also acknowledge the role of general skills, such as organisational ability, commitment and communication. The students’ perceptions of musicality provide an insight into the desirable musical behaviours of the community (Green 2008; Hargreaves & Marshall 2003). As noted in chapter 8 in

relation to the musicians it is how the community constructs their definition and understanding of music which influences their concept of who is musical and who is not (O'Neill 2002).

In relation to talent development, the students largely remarked on the role played by opportunities and provision on offer (as opposed to commenting on significant individuals or teachers). As suggested by the work of Sloboda (1990) and Green (2008), a misconception exists that to become musically talented requires the input of an expert teacher. However, talent development arises from an amalgam of multiple contexts, including interaction with people and opportunities, which the individual responds to and internalises for the purposes of their own development. This is perhaps best illustrated through the comments of C/US 39:

*I very much appreciate all the opportunities that have been made for me, and I realise my experience is, in fact, rather vast and extraordinary...at least so I believe! My parents and teachers have all been very supportive throughout my musical career. Of course, I have not stopped developing and learning. I look forward to the day when I have(!)*

Overall, the participating students noted the need for access to provision and opportunity, with many having to go beyond school-based provision to meet their development needs. While Winstanley (2006) is of the opinion that such opportunities and resources should be provided within mandatory education, the reality is that for many this is not the case. This was exemplified by the student participants in this research, many of whom went beyond school-based provision in order to extend and develop their musical ability. Mandatory provision, for this participating cohort, was not suitable for their learning needs.

Green's work suggests that pupils' own values, and constructs of music and music education, can influence how they perceive the experiences (Green, 2002; 2005). Nevertheless, there can still be a divide between what schools can offer in terms of musical experiences, and what students need in order to successfully develop their ability. Consideration of the pupils' interests (in addition to their learning needs) may be one means to bridge this divide, but this could require a different mindset and pedagogical

approach from both teachers and learners. The next chapter in this thesis will explore the beliefs, values and learning experiences of pupils at a National Centre of Excellence (NCE) in order to understand the approaches to learning and development which these learners take.

## 11 Musical development – a case study

The content of the thesis so far has focused on general theories of gift and talent and has related these to literature on musical ability. These aspects have been explored via theoretical analysis and empirical research in the earlier chapters. (see chapters 8-10). This analysis will now be augmented by focusing on a case study of one National Centre of Excellence (NCE). As noted in the Methodology chapter (chapter 7), this case study involves a highly specialised learning environment and forms the basis of Empirical Strand 4 (see Figure x.1 in Introduction chapter for further details). While the intention is not to compare and contrast the learning experiences and resources of the specialist school with provision in mainstream schools, the findings (regarding processes of music learning) may hold value for mainstream institutions.

As acknowledged in chapter 7, the nature of the data collection was altered due to access and participation issues. The decision was taken to focus on the responses of expert musicians and school pupils at one NCE in Scotland. Chapter 8 began to align theory to empirical data, stressing the importance of self-efficacy in the development of musical talent for a group of successful musicians (n=62). In doing so the chapter illustrated that the participants regarded musicianship as being about more than performance and performing: it involves a complex psychological and physiological attachment and attraction to music and performance. Chapters 9 and 10 presented an overview of the perceptions of teachers/instructors, Programme Leaders/course co-ordinators and current music students on issues relevant to the talent development process. However in order to gain a deeper understanding of the development of musical talent at a formative age, the views of the school pupils at one of Scotland's NCE for Music (n=14) are explored in this chapter.

### Background

The creation of specialist provision is not a new venture in Scotland. In the 1970s, consideration of the needs of gifted and talented dancers and musicians was acknowledged in the report *Gifted Young Musicians and Dancers* (1976) (also known as the Cameron

Report) and later in the 1990s through the document *The Education of Able Pupils P6-S2* (SOED 1993). The establishment of Centres of Excellence by the Scottish Office (now Scottish Government) in 1998 - funded through the Special Programme of Excellence Fund (SOED 1998) - aimed to meet the learning needs of pupils and build upon the intentions of Cameron Report (1976) to develop the more able young person during their mandatory education. At present there are nine state-funded NCEs in Scotland which cater for more able pupils in a multitude of disciplines, four of which include music. In addition to the Centres, Scotland has one independent (fee-paying) specialist music school.

Admission to the four music specialist NCEs (and the independent music school) is by audition, with prospective pupils expected to demonstrate that they possess a high level of ability as well as the potential to achieve more through the specialist experiences provided in the school. Each school has its own respective requirements and means of auditioning which reflect its specialism(s). NCEs provide pupils with mainstream learning at Secondary School while providing access to specialist support, opportunity and resources and high quality tuition in their specialist discipline. In order to obtain funding, Local Authorities and prospective schools were required to demonstrate that there is a “demand for the particular specialism – i.e, if offered, a sufficient number of pupils with appropriate skills and abilities would want to participate” (IPF 2005:NP). It was also expected that schools (and prospective pupils) should have strong community relations (IPF 2005).

### **Data gathering**

The data for this chapter were gathered via questionnaire (n=11) and focus group (n=14). Participants in both the questionnaire and focus group were pupils at one National Centre of Excellence. This data is presented as a small case study. Case studies are useful tools for qualitative researchers to gain an insight into the perceptions of their participants. As recognised in chapter 7, the process of data collection through a focus group differs from a questionnaire in that there is opportunity for interaction, commentary, concurrence and discourse of responses between the participants (Kidd & Parshall 2000). These elements of group interaction are important features of focus group interviews and can aid the researcher in establishing a non-threatening environment to help solicit responses. This case study therefore provides clearer insight into the experiences of the participants (Gall et al. 2007). Stevens’ (1996) research considers that the sense of a ‘shared experience’ in a

focus group discussion allows for wider participation and sharing of ideas than would perhaps be solicited in a one-to-one situation. She notes that when group members share common thoughts, the participants are more likely to respond and contribute their own ideas (Stevens 1996). This idea is acknowledged by both Kidd and Parshall (2000) and Kitzinger (1995). Kidd and Parshall (2000) also consider that focus groups are more stimulating for the participants than some forms of data collection (such as questionnaires).

All specialist music schools in Scotland (four NCEs and one independent music school) were contacted; only one Centre responded. Permission to invite S4-S6 pupils to participate in the research was required from the Head Teacher of the School and the Head of the NCE in addition to the pupils and their parents. However, due to the small number of pupils in the Centre (the school can host up to 23 pupils), and on the Head of the NCE's recommendations, it was felt that 14 pupils from S2-S6 would represent a wider scope of activities and experiences of the Centre. This was the number of pupils who were interested in participating at the time of the data collection. Each parent and pupil was sent an information leaflet and consent form and asked to sign and return if they wished to participate in the research. The consent forms were signed by the parents and retained by the school for their own records. It was agreed between the school and the researcher that data would be collected in two ways, through a focus group and an anonymous online questionnaire. The data collection process of electronic questionnaire and focus group were used at the Centre in order to specifically address research question 3: *how is musical ability nurtured?*

The questionnaire was completed by the selected pupils prior to the onsite focus group taking place. Before use, drafts of the data collection instruments were sent to the Director of the Centre for approval. All 14 pupils contacted agreed to participate and were present at the focus group, with 11 participating in the pre-focus group questionnaire. The questionnaire for the NCE pupils was similar to that used for the successful musicians, but the pupils were asked more questions about their learning, their present situation, and their ideas on the role which music may have in their adult lives (as opposed to reflecting on past experiences). Therefore, the pupils' narratives are more closely related to their musical aspirations as opposed to a reflection on experience. All questions were designed to include a variety of closed- and open-ended responses, and were linked to the aims of the

research questions. Participants were asked to omit any question they deemed as irrelevant or intrusive. A more detailed discussion on constructing the questionnaire has been given in chapter 7.

The second method of data collection used in this research was a focus group. The focus group was conducted onsite at the Centre in April 2009, with the intention of allowing the pupils to elaborate and clarify points from the questionnaire and to generate more points for discussion. The outline for the group session was based on four areas. These were:

- Qualities that make their favourite musician(s) appeal to them.
- When did you first notice that you had ability?
- Who helped you develop your musical ability?
- How important has formal music teaching/the Centre of Excellence been to you?

The areas identified above were structured to represent the developmental model of Gagné (2004) in that the questions asked the pupils to discuss at what stage they felt that they were musically able, and how their development was nurtured and/or influenced by their context(s).

For the purposes of the discussion, the identities of the school and the participants have been anonymised. However, the school may be identifiable through the responses of the participating pupils. The staff at the Centre were made aware of this potential difficulty at the outset, yet remained keen to be involved in the research. In the presentation of the data, direct responses by pupils have been termed ‘pupil’ and distinguished by number, with the method of response also noted in the coding: for example, Pupil 1:Q (questionnaire) or Pupil 1:FG (focus group).

### **Findings from the questionnaire data**

The initial findings from both the questionnaire and focus group are similar to those of the musicians in chapter 8, however the participating pupils believe their ability to be more

attitudinal or behaviour related than innate or inherited. Emphasis was also placed on group identity and ways of social learning. Interestingly, the responses gathered during the focus group placed more emphasis on self, peers and school as opposed to the more family orientated responses of the questionnaire. This could be as a result of the group taking place with their peers in the context of the school.

The questionnaire data underlines two broad areas which merit discussion. These are: the pupils' concepts of talent, and the role of their families and the NCE in supporting their talent development. These areas will be discussed in the sections that follow. Thereafter, the findings from the focus group will be discussed.

### *Concepts of talent*

Although the pupils were not explicitly asked to provide a definition of musical gift or talent, their own conceptualisations of these terms, and their ideas about the nature of musicianship, surfaced in the questionnaire and focus group responses. The school pupils tended to feel that musical ability was more related to interest or possessing the 'right attitude' for development rather than possessing a specific musical ability. The pupils mentioned the importance and role of school and family in their development, in addition to possessing the 'right attitude' to develop their skills and to practise. Of greatest interest to this chapter are the pupils' views of musical ability as an 'attitude' or 'behaviour', considering themselves as different from their school peers in that they possessed the 'right' attitude and interest for musical learning.

Some pupils were clear that they did not consider themselves as gifted or 'special':

*I wouldn't say I have 'musical ability'. Music is something almost anyone can learn, and with work and practise you'll get better. The more you work the better you get, although obviously it comes easier to some people. I think some people are genuinely gifted (classical composers like Bach, trad musicians like Gordon Duncan, Martyn Bennet to name a few) but myself and most of the people I know are just ordinary people who love something so have chosen to work hard at it.*  
(Pupil 2:Q)

*I do not believe that I have a said 'ability' in music. I believe people become talented after extensive practise. Obviously music is easier to some but that is the same with anything. If someone works hard enough at something then they can achieve their goals. (Pupil 5:Q)*

*I wouldn't say I have any special ability in music. We were offered lessons in primary school, and I liked the idea so I started playing. No one ever decided I had musical ability, I just enjoy playing. (Pupil 9:Q)*

The pupils considered that they could 'become gifted' through hard work. The fact that the pupils described their ability as an attitude suggests that it is a developable mindset - an aspect emphasised by Hargreaves and Marshall (2003) as being important to the learning process. This mindset is characterised by self-belief in one's ability to participate in, and complete, a task while having the resilience to continue to develop in the face of challenge or difficulty. In relation to theory, this view of how talent develops aligns with the views of both Gagné (2004) and Renzulli (1984). For Gagné (2004), talent is the product of teaching and learning processes, but his view requires there to be an innate basis on which to build. Renzulli (1984) on the other hand, considers that individuals can learn to develop gifted and talented behaviours through access to opportunities and experiences. This view has similarities with the work of Hargreaves and Marshall (2003) who consider that can-do mindsets are important in the learning process and that this type of mindset can be developed.

Concepts of talent were explored further in the focus group. The pupils believed that musical ability was can be nurtured and that it was developed over a period of time, but that the "right attitude" (Pupil 1:FG) was required to improve and make the most of the opportunities which were available. The NCE pupils' responses here are indicative of the self-efficacy discussion arising from the musicians in chapter 8. Within chapter 8 several of the musicians believed that success is the product of having both a drive to succeed and an ability to work hard on a challenge. In terms of ability, the participating pupils in the focus group believed that musical ability was related to showing interest in music as well as possessing the attitude to develop and learn. This interest could be taken as their interest in music generally or being interested in learning more about their instrument/voice.

### *Support and encouragement: family and the Centre*

The pupils were clear that external influences and opportunities were required to develop musical talent and they related these external features to the support and encouragement of their families and to the opportunities available at the Centre. Whereas the successful musicians could recall varying degrees of enhancing and delimiting experiences with their families, the responses from the NCE pupils were all enhancing in nature. The participating pupils were able to recall particular instances of support and encouragement from their parents and family. All pupils referred to the support of their family frequently throughout the questionnaire responses and focus group discussion, noting this aspect more than did the successful musicians. All pupils came from musically involved families: their parents were performing musicians or were appreciative of music, and some participants pointed out the important role which music had in their household. One stated: *“There was always a session in my house, it just seemed normal”* (Pupil 7:FG).

Whereas the successful musicians and Conservatoire/University students did not necessarily have a performance-orientated musical background, all participating NCE pupils did. One pupil discussed the support which her father provided for her throughout her musical development:

*I think most of my ability is down to my family. Through their support and encouragement it inspired me [to] further my interest in Traditional Music. If it wasn't for my Dad I doubt I would have delved any further into music until much later in my life. I learned to love music through him too.* (Pupil 10:Q)

Pupil 10's father encouraged support and appreciation of music. Support for talent development does not have to be financial, or relate to formalised lessons but can relate to a parent fostering an appreciation of music and encouraging awareness of sounds. The notion of encouragement and support was mentioned by others:

*They [mum and dad] found me a room in the house to practise without disturbing the neighbours. Both of them encouraged me.* (Pupil 1:Q)

*I was encouraged by my family to play traditional music. I began playing violin (classical) at the age of 10 and by the age of 13 I was receiving weekly lessons from [private music teacher]. My family have always helped me pay for my lessons even though they are not very well off. (Pupil 2:Q)*

*My mum took me to [my] lessons and paid for them, she spent most nights listening to me practise and she has taken me all around the country to my competitions. (Pupil 11:Q, original transcription)*

The responses emphasise that sacrifices have been made by the pupils' families to enable the pupils to commence and sustain their musical development; these sacrifices were noted and appreciated by the NCE pupils. However, family support was not limited to sacrifices and encouragement, but could take the form of a family member acting as a role model. One pupil commented on admiring his cousin for his musical ability. He considered that his cousin held a desirable position in the musical community which was related to his skill, work ethic, dedication to improve and willingness to share his musical knowledge and skill. Two parallels with research literature can be drawn from this view. In relation to the work of Gagné (2004) it is apparent that the talent development process is influenced by external events and people that have an impact and influence on the individual's intrinsic motivation.

In addition to family support, the pupils discussed their experiences at the Centre. The length of time spent at the Centre varied. One or two participants attended the school only in S5/6. Two pupils had been attending for four years. The school is important to the NCE pupils in many ways. For some, it was the first opportunity to access formal lessons. For others, it was the first opportunity to access to opportunities in their preferred genre (traditional music). One participant stated that he came to the Centre because it is "*the only place that actually has what I like [the musical style]*". Another view was that the Centre allows for like-minded peers to develop together.

The importance of provision and opportunity appropriate to the individual's needs was noted in chapters 7 and 8 by the Programme leaders/course co-ordinators and the Conservatoire/University students respectively. For many of the students in chapter 8, appropriate provision occurred in their own time outwith their mandatory school provision

or in combination with school-based learning. 80% of the students in chapter 8 participated in private tuition, with 13% attending a specialist music school similar to a National Centre of Excellence. The pupils from the case study NCE noted the importance of their music teachers at Centre, but also recognised the role of instruction from private teachers to allow them to learn more instruments than the mandatory instrument plus voice of the NCE's curriculum. Six pupils stated that they participated in lessons outwith the Centre. Many of the participating pupils discussed their previous music teachers in relation to their present experiences. Opinions varied greatly. Many pupils consider that their previous school teachers were encouraging and supportive in guiding their development:

*[I was] encouraged to take music as a school subject and pick up a second study. I was also encouraged to compete by my piping teacher. (Pupil 3:Q)*

*It was originally my Primary School Music Teacher who suggested that I joined the Music School. I doubt I would have joined if she hadn't suggested it. I certainly wouldn't have joined so early anyway. (Pupil 4:Q)*

On the other hand, three pupils thought that their teachers in mainstream (before attending the Centre) only “*taught me because they were paid to*” (Pupils 7, 9, 10: all FG).

A common factor in the less positive responses was the nature of the pupils' musical genre, whereby the participating pupils believed that their teacher did not understand the nuances of their genre, had no interest in it, or thought that the school could not accommodate their needs. A similarity can be seen from the response of Traditional Musician 3 (see chapter 8), who noted that his chosen genre was unappreciated within school music lessons. This parallels the discussion of ‘masked’ ability seen through the work of Winstanley (2004a). Winstanley (2004a) is supportive of opportunity for all children, some of whom may have untapped potential, but her work predominantly focuses upon the underachieving gifted child whose skill may be masked by disability or circumstance. She considers that some teachers may see children primarily for their disability or difficulty rather than what they could achieve. The idea of ‘masked’ ability was noted by one of the pupils. This pupil considers that the hidden nature of their ability relates to their teacher's perception and value of her chosen pursuits:

*[T]eachers outwith school have taught me over the years, but I have had problems with music teachers in school [in her old, mainstream school] as they do not agree with [my] music. (Pupil 9:Q)*

This pupil's views point out additional difficulties, in that she believes that classical music was seen as being privileged over the other musical genres in her previous school. This would suggest that there was a misalignment of interests, with the pupil wishing to study one genre while the curriculum was more focused on different content, in this case classical music. Whereas the pupil may have thought that the teacher was not interested in her preferred genre, it could be the case that the teacher was bound by the curriculum. This may lead to some learner abilities being hidden.

A related issue regards assessment. This is an area which the staff at the Centre have attempted to address. Due to the specialist nature of the genre, it can be difficult to hone the pupils' skills and abilities into the established Scottish Qualification structure. The Centre therefore encourages the pupils to participate in external examinations through Trinity, Guildhall and the Associated Board (something mentioned positively by the pupils). These external examinations encourage the pupils' interests and accommodate their specialisms and level of ability in a more appropriate way than does the National Qualification structure in Scotland.

In addition to fostering learning within school hours, the Centre encourages the pupils to become involved in local community and nationwide events. This was mentioned on by the pupils as providing them with greater opportunities to learn through informal networks, opportunities which would not have been readily available within their mainstream schools. The participants also pointed out the opportunities for solo and group work available at the Centre. Several pupils noted that they were involved in the school pipe band and folk group (although they did not clarify whether these were part of the mainstream learning or part of additional activities available via the Centre). The responses confirm that the pupils value these performance activities as they 'opened doors' to other opportunities and provided ways of gaining recognition (in a similar way to competitions).

## Findings from the focus group data

The focus group was structured to gather data across the four areas of research interest. It also afforded the opportunity to clarify comments from the participants in the questionnaires. Groups of 3-5 pupils were given flip chart paper and pens and asked to discuss the questions as a group, note their responses on the paper and feedback to the other young people. During the feedback session other groups could make comments if they wished. This section of the chapter will reflect upon the issues which arose during the discussions and will analyse the data by key area.

### *Area 1: Qualities which make their favourite musician(s) appeal to them*

The pupils were asked to consider their musical role models or those who they considered to be musically gifted/talented. They were also asked to clarify and elaborate on some of the terminology previously used in their questionnaire responses. This activity was designed to explore what the NCE pupils believed were musically desirable traits. Several of the models identified by the pupils were ex-students of the Centre, visiting tutors, or musicians the pupils had seen at concerts or in sessions. The skills which were identified by the pupils as desirable qualities are shown in Table 11.1 below. This table shows that although the NCE pupils did not like the terms or the labels of ‘gift’, ‘talent’ or ‘able’, they could identify features which they considered as desirable and which they themselves would like to aspire.

**Table 11.1: Area 1 Qualities of their favourite musician(s)**

	<b>Skills/attributes</b>
<b>Group 1</b>	Adaptability; competent on their instrument; the progressions that the musician uses; knowledge of harmony and progressions; breaking the rules of harmony; ‘tight’ playing (Bands); sound, style and appeal (like musical fashion); hard work; stage presence.
<b>Group 2</b>	Stage presence; if the audience feels comfortable, their interpretation of the music (moving from notes on a page to meaning); technique; wide knowledge of music and instruments, not limited to their own genre or instrument; good to listen to.
<b>Group 3</b>	Technical ability; adaptable (instrument and style); enthusiasm; unique sound “ <i>mess about with stuff</i> ”; style (again, linked to technical ability and stage presence); a winner/ champion (“ <i>depends on your instrument</i> ”); humble; stage presence.

The pupils note the need for technical skills and musical knowledge, but also think that additional aspects such as stage presence, identity and enthusiasm are important. Some connections from the above table can be made to research by Davidson (2009) who conducted a study on ‘what is the performer’ and ‘what makes the performer’. In her research she analysed the responses of assessors towards classical singing students at a conservatoire. The responses gathered were similar to those found in table 11.1 with comments passed on stage presence and making the audience, in this case the assessors, feel comfortable in the performer’s recital. Similarities can also be drawn to the work of Hallam (2010b) whereby sense of rhythm, expressing thoughts and feelings, understanding and interpreting music were all seen as key features of musical ability.

The pupils appreciated musicians who were at ease on stage and who were humble (regarding their ability) and made the audience feel comfortable with their music. One stated: *“There should be a comfort on stage for music rather than over confidence. It’s hard to relate [to a musician(s)] if they have a big ego”* (Pupil 7:FG). For the NCE pupils, musical ‘genius’ was associated with personality and identity. Those musicians who displayed passion, commitment and determination were considered to be good, but to be a ‘musical genius’ also required them to be passionate about sharing and encouraging others to participate. This aspect reflects the views of the successful musicians (see chapter 8). This view is indicative of what is valued in a musical community or culture in terms of the desirable behaviours and identity associated with that culture (Green 2005b). The pupils felt that belonging and feeling involved in musical culture was necessary for both performer and/or audience, to create a journey of sharing and mutual appreciation.

### *Area 2: When did you first notice that you had ability?*

The responses for this theme demonstrated the pupils’ recognition of their ability and their own awareness of music around them. This area prompted lengthy discussion amongst the participants, with several (if not all) NCE pupils remarking that they had never considered how they recognised their own special musical ability. For many of the participating pupils, self-recognition of their ability came from being involved in the Centre and taking part in activities such as examinations, opportunities to perform, and competitions. In other words, their abilities are affirmed by external agencies. One participant noted that she recognised her own ability through the mandatory music lessons available for all pupils at

Primary School. This young person felt that she possessed more interest in continuing her musical development than did her school peers. She believed that as her friends began to 'drop away' from music, she showed more 'interest' as she was keen to learn more and become better. She described her experience as an 'autopilot' feeling that she was able to understand musical techniques and skills quicker than her peers.

O'Neill (2002) notes that a young person's conceptualisation relates to how s/he understands the categories of musicality, valued and desirable behaviours and expectations of the musician in the culture. If a young person is able to engage in a musical culture they would be able to experience these attributes and roles at first hand. This allows the participating pupils the opportunity to develop their understanding through engaging in society and absorbing the views of others around them before attaching these onto their own self-evaluations and theories, thus helping them to form perceptions of identity and sense of belonging to their musical culture as well as building their conceptualisations of talent. This is also similar to Green (2008a) who notes the power of this form of learning in relation to pop and traditional genre musicians. Green believes that musicians from these genres are frequently involved in performance and observing the performance of others and that such experiences can foster motivation for musical tasks, with inspiration coming from both peers and role models. As a result the learners are more likely to gain an understanding of the roles and expectations of their genre(s).

The NCE pupils believed that performance was one of the most effective ways of contributing to musical culture and gaining recognition. Performance opportunities came in both solo and group work at the Centre, and the pupils supplemented this with a wide variety of activities in their own time (such as composing, or performing in other genres). Competition was another feature which enabled the pupils to identify their ability level. Competition is a common feature of musical culture and was noted (both positively and negatively) by the participants. The pupils deem competition as important for benchmarking ability and for gaining status. However, some felt 'forced' into competing. Competition was seen as an 'unreal' situation and a technical display, something which could have negative connotations for the performer:

*...it [competition] doesn't say anything about overall musical ability, just that you can play a piece or have the technique to play that one piece. (Pupil 8:FG)*

*A false hope, makes you feel that you are really more successful/able than you are or if you don't win that you are less successful or able than you are. (Pupil 9:FG)*

*We shouldn't be competing against each other, it should be about getting together and loving and appreciating music. (Pupil 10:FG)*

Other participants viewed competition as routine - a part of their musical heritage and/or an opportunity to share. One noted that “[competition] *can be a good...it's the experience of participating and meeting other like-minded people*” (Pupil 1:FG). Similarly, Pupil 3 (FG) stated that “[a]t competitions you get to see all the other singers and you get to know them and you make friends and can share songs and learn new ones”.

Overall, pupils enjoyed working with like-minded peers and receiving feedback from their friends, teachers and audience members. Hallam (2002) considers that individuals are motivated to participate in musical activities through their environment and the feedback in which they receive from it. In this case, the individuals are being provided with feedback from the audience, but more direct feedback from significant others or from role models can have a tremendous effect on the individual's development and self-belief (Green 2008). Approval, acceptance or criticism from others is internalised by the individual and this, in turn, affects their self-confidence, self-belief, goals and behaviour.

### *Area 3: Who helped you develop your musical ability?*

This area pointed out the social elements of musical development. Several sources of development were identified which were similar to those noted in the areas above (family, school, peers). However in this theme the pupils emphasised the importance of self and role models. Most of the NCE pupils felt that the right attitude for development is necessary even though talent development also required encouragement derived from external sources (for example, competitions, practice or family and peer support). The pupils considered that it is the individual who must show determination and a desire to improve and to use the opportunities around them to further their musical experiences.

One young person noted that being involved in a musical community (as a performer, competitor or audience member) was vital to development. Just as necessary was the need for a role model - someone to aspire to and learn from. When asked who helped develop their talent, one pupil said: *“Your idols, like the ones on the [flip chart] paper, you copy them. Modelling is really important”* (Pupil 8:FG). Role models possess behaviours and skills valued in the musical culture which the pupils identified. During this period of adolescence and identity formation, pupils are also open to wider sources of influence, with parents and family being joined in influence by peers, the wider community and the media. Each source or context of modelling not only shapes the pupils’ ability and attitude for learning, but also helps shape their musical identity.

Modelling has already been discussed in chapter 8. However it is relevant in this discussion since the NCE pupils placed more emphasis on modelling than the successful musicians. While Bandura (1982) suggests that modelling shapes self-efficacy, Hargreaves et al. (2008) suggest that modelling is particularly important in the formation of identity in adolescence (models having both a direct and indirect effect on our attitudes and development). Hargreaves et al. state:

We constantly compare ourselves with others, so that particular situations and social groups exert a powerful influence on what we do and what we say. We also compare our behaviour with what we expect ourselves to do on the basis of our self-image, which is built up from past experience, and with what we would like to do, i.e. with our ideal self-image... This influence of other people’s views can be felt partly through the indirect process of comparing ourselves and our behaviour with similar others to obtain a sense of our relative effectiveness and worth, even when those others may be unaware of their effect on us. (Hargreaves et al. 2002:8)

This view is developed further by Hardy (1986), who notes the difference between imitation and modelling:

[W]hereas imitation involves the reproduction of the specific acts of other people, identification refers to a practice which occurs over a longer period of time...We ‘imitate’ an act, but we ‘identify with’ models: we tend to adopt their general behaviour, and even to reproduce their likely behaviour in situations where we have not observed them or had a chance to imitate them. (Hardy & Heyes 1986:133)

An individual therefore internalises what she believes to be the model behaviour and then uses this to develop her own behaviour(s).

Green (2008) considers that there is much to learn from watching, listening and imitating other musicians and peers in what she terms as a ‘community of expertise’. From her own research, Green (2008) indicates that a key feature of social or informal musical learning in pop and folk genres is group work, whereby one can learn through being submerged in common practices and develop musically through listening and imitating. She comments that performance opportunities within communities of expertise encourage the young person to become actively involved in, and understand, the musical culture, learning from like-minded peers (with or without being led by an expert). If a child is able to identify and relate to behaviours which the culture see as desirable, they are more likely to think and believe in their own ability as a musician.

*Area 4: How important has formal music teaching/the Centre of Excellence been to you?*

The final area of consideration for the focus group allowed the NCE pupils to elaborate on the support available from the NCE, and to consider the opportunities and experiences which they had gained at the Centre. Gladwell (2008) notes that a common feature of talented individuals relates to how they perceive and use the experiences on offer to them. In relation to this, the pupils understood the purpose of the Centre and their role within it. The consensus among the NCE pupils was that the support on offer was not the same as had been available in their mainstream schools, as they now had access to professional musicians and highly talented tutors at the Centre. For one or two participating pupils, it was the first experience of formal tuition on their instruments. The pupils realised that they were required to work to justify their place at the school and to become a part of this musical community. They appreciated the support and opportunities on offer to aid their development: “*You have to work, you have to be keen to work, there’s nothing else to do, there are less distractions here*” (Pupil 3:FG).

In addition, the opportunity to work with like-minded friends was seen as important. This indicates the importance of learning experiences within musical communities and of

learning as a collective group. The pupils did note that they had formed their own identity which was not always accepted in their previous mainstream schools:

*It's hard to change [some attitudes of teachers and pupils] towards academic subjects. Music is seen as less important. It's like they [the mainstream] don't know what we do, there's no dialogue between the two areas, a separation between music school and the mainstream. It's [about] identities and groups. There's a difference. When you go to the main school you get singled out as a 'buff' so the two groups don't tend to mix together. (Pupil 11:FG)*

The pupils felt that they had bonded together in the Centre and created their own individual and group identities. However, they did not like the label 'buff' (music buff), feeling that this was hard to 'shake off'. The participating pupils agreed that they wished to be appreciated for their (general) academic ability in addition to being recognised for the hard work and discipline required in their music studies at the Centre.

From the pupil responses to both the questionnaire and focus group, several important notions arose which require fuller exploration. These centred on the idea of musical talent as being developed as a result of hard work, as well as ideas about identity and culture. The NCE pupils did not believe that they possessed a special ability in music, considering that they had the 'right' attitude and interest to develop their skill. The responses of the pupils also provide an insight into their musical culture and the shaping of their identity as adolescents and young musicians. Both of these aspects are discussed in greater detail below, as are other important aspects which arose from the data. These aspects include: the importance of attitude and motivation to talent development; the role of the teacher in talent development; music identity and culture; and self-directed learning and developing capability.

### **Talent: the importance of attitude and motivation**

As seen in chapter 8, the successful musicians considered that musical talent required hard work and discipline. Although there may be an innate basis to ability, this is not necessarily music-specific. The view of ability as being developed was shared by the school pupils and is seen from a theoretical perspective through the enrichment work of

Renzulli (1977) and developmental approach of Gagné (1995a) (see chapter 3). Gagné acknowledges that the individual's innate attribute is influenced and developed by extrinsic factors, while Renzulli (1977) stresses the needs of the *potentially* gifted and talented child. As seen in the quotations earlier in the chapter, the NCE pupils consider their ability to be the result of hard work and determination to succeed. They do not view themselves as gifted or 'special' - more that they possess the mindset to improve and learn from others. Dai et al. (1998) note that gifted and talented individuals often attribute their success to hard work more than to chance. This also reflects the idea of specific contexts giving rise to catalysts or 'conditions for musical excellence' (McPhee et al. 2005). These conditions also have relevance to Bandura's (1982) concept of self-efficacy which underlines the close relationship between the individual and the environment, with each as important to the development process as the other. The environment contains and provides stimuli; however it is how the person internalises and perceives a particular context which determines how their talent develops.

A key point raised by the pupils was the need to possess the 'right attitude' for musical learning. They considered this in terms of their own musical ability, highlighting that, when compared to school peers, their musical ability was a result of their perseverance at tasks and lessons. This 'right attitude' can be taken as supplementing any innate basis for talent and can be related to Bandura's (1977) concept of self-efficacy. As discussed in chapter 8 self-efficacy is self-belief in one's ability to undertake tasks and overcome difficulties: how a person perceives these tasks determines their level of commitment to developing mastery in their activities. Those who have higher self-efficacy view tasks as challenges to be mastered rather than as threats, using previous successes (and errors) as a guide for future development. This equates to a deeper interest and involvement in related activities (Bandura 1977). This view is similar to that of Hargreaves et al. (2002) who see this as a 'can do' mindset which can be nurtured through encouragement and support from various sources (for example, teacher, peers, family, role model). How a child perceives themselves to be at a subject, or what they wish to attain from the experience (mastery or competence) (MacLean 2003), may be as important as their ability level (Hargreaves & Marshall 2003).

## **Talent: the role of the teacher**

Teachers are vital in aiding pupils to foster self-efficacy in a task. Arguably, this could be more difficult for music teachers as music is a subject in which people consider themselves to have musical ability or not. Hargreaves et al. comments that “if children do not view themselves as musical, it will be difficult if not impossible for them to develop musically, as performers at least” (Hargreaves et al. 2002:16). This point has important links to enhancing and delimiting factors. If a child has belief in their ability, they are more likely to succeed, and belief can become one of McPhee et al.’s (2005b) ‘conditions for musical excellence’. Of course, motivation to succeed and develop musical ability is made more likely through support and encouragement in a variety of forms. If a pupil feels unable to participate in an activity because of past experiences or because of negative or delimiting influences, this may result in “a downward spiral of not trying, therefore becoming less able, therefore trying even less” (Hargreaves & Marshall 2003:265). Although external opportunities may be presented to the individual, talent development or success in an activity relies on what the individual does with the opportunity as well as the way in which they conduct themselves in relation to the experience on offer. The views of Hargreaves and Marshall (2003) and Hargreaves et al. (2002) seem to indicate that practitioners should be supported to think along Renzulli’s (1977) enrichment lines to encourage more interest to develop. If opportunity is not provided, then it is impossible for development to occur or interests to be sparked. This would suggest that consideration of the professional development needs of teachers is required.

The type and level of CPD required for teachers/instructors is dependent on the amount of musical experience and level of specialist knowledge which the practitioner possesses. In terms of trainee and new teachers, Ballantyne (2007) discusses the role of training secondary music teachers in Australia. She notes what she terms as ‘praxis shock’ (Ballantyne 2007) whereby there is a misalignment between the training of music teachers and their actual development requirements when out teaching in school. Similarly, Holden and Button (2006) consider the teaching experiences of specialist music and non-specialist primary teachers, noting that teacher confidence in delivering music and in their own musical abilities influences how they teach music. The authors emphasise that the areas which teachers believed influenced their level of confidence and engagement in music were: feeling daunted by singing and singing in tune; working with the voice; teaching older children; teacher self-perception of musical ability; and lack of subject knowledge

(Holden and Button, 2006). The study notes that there is a need to provide support for teachers (more so the non-specialist class teachers) to develop their skills, knowledge and confidence in order to promote a positive learning experience for children.

Holden and Button (2006) comment that a common perception among teachers is to believe that they have musical ability or no', noting that some practitioners prefer leaving the classroom based learning to the visiting music specialist as opposed to participating in the learning experience themselves. Holden and Button consider that if teachers possessed a good subject knowledge they were able to "convey their enthusiasm for music to children" which gave the teacher "credibility in the teaching situation" (Holden and Button, 2006:33). This leads the authors to argue that music in the primary school is unlikely to develop if teachers are not provided with the opportunity to develop their abilities and confidence within the context of their own classroom (Holden and Button, 2006). As a possible alternative the authors suggest that teachers should take the opportunity from within the school to learn from one another, developing resources and ideas together, and using the music specialist as an additional means of developing the musical experience to a higher level. This, Holden and Button (2006) believe, encourages the teachers to become more confident and also allows for the pupils to have more enjoyable experience. Holden and Button's research (2006) emphasises that if teachers are provided with appropriate and quality CPD experiences, they are more likely to retain skills and knowledge with a higher prospect of translating their skills into the classroom. This would suggest that at the core of professional development in music education is the need for developing teacher confidence and skill in creating and delivering music lessons.

In terms of this research, the Teacher/Instructor participants represented specialist Secondary or Conservatoire/University staff. The primary sector was not consulted. Therefore, while this research suggests that those in the Secondary schools, Universities and Conservatoires would have a good to high ratio of musical self-efficacy, presently, the primary teacher perception remains unknown. What has arisen from the thesis data is the idea that, while specialists may be more comfortable in creating and delivering constructive and supportive musical learning experiences, non-specialists may require additional support. Therefore, teachers should be encouraged to utilise more informal learning strategies to help them to provide meaningful learning experiences in the

classroom context. The focus should be on encouraging and developing pupil interest, self-efficacy and intrinsic goals rather than on meeting targets. Again, intrinsic goals can lead to a feeling of self-satisfaction, belief and enjoyment.

### **Musical identity and culture**

From the pupils' responses in both the questionnaire and focus group, a key theme emerged with respect to talent development: the importance of the cultural and social dimensions of learning. The pupils at the Centre are aware of their musical heritage and understand how their involvement at the school expands upon their musical learning at home and with friends to increase their understanding of their own ability. The NCE pupils' involvement in the culture was evident in the questionnaire and focus group responses. Opportunities to share and contribute helps to form the pupils' own identity. This ties into the active learning research of Hallam (2005) and Green (2008) whereby one becomes enculturated through belonging to a group, but can learn from it almost through osmosis. The pupils are aware that they are contributing to this culture. This also came across in the discussion of future generations, with some participants wishing to pursue a musical career, maintain an interest in performance or become a promoter of the culture.

The formation of identity provides information and an insight into the desired behaviours and expectations of groups within a culture, and consequently into how the group conceptualises ability (Green 2005b). Green notes that the interactions between members within the group help to construct the meaning of music for the participants as well as a sense of belonging for the individual. They are aware of the expectations required from them and what they can expect from others:

[F]or many people, music helps in defining their identity as an individual within a group or groups. Individual members of peer groups and sub-cultural groups, for example, use music as one way in which to affirm their identity within the group. This, in turn, aids group cohesiveness. Once again, the music itself is not arbitrarily chosen but it carries appropriate meaning by dint of convention, it affords certain responses and behaviour, and it is suitable to different degrees, for certain uses and meanings. (Green 2005b:51).

In terms of this research, the pupils were able to identify desirable traits in other musicians and use these as benchmarks for their own performance. A young person's conceptualisation of their own ability relates to how (s)he understands the categories of musicality, valued and desirable behaviours, and expectations of the musician, that are accepted in the culture (O'Neill 2002). The pupils develop their understanding of musicianship and ability through absorbing the views of others around them before attaching these onto their own self-evaluations and theories. This helps to form the pupils' own perceptions of identity and sense of belonging to their musical culture.

Hargreaves et al. (2003) take this further, noting that the complex layers of musical identity can be subdivided into two broad components: *Identities in Music* (IIM) and *Music in Identities* (MII). *Identities in Music* (IIM) is the socially defined aspect of identity, based upon social and cultural roles in the musical community (Hargreaves & Marshall 2003). This relates to the role which one perceives oneself to have (or not have) within the musical community (for example, as a composer, performer, teacher or appreciator of music). These roles are shaped by societal and cultural values and take two forms: generic (for example, teacher, performer, composer) and specific (genre, instrument). The second component of musical identity is *Music in Identities* (MII), or "the ways in which music may form a part of the individual's self-image" (Hargreaves & Marshall 2003:264). In other words, how we use music to identify ourselves. This relates more to the individual's level of involvement in music and alters with the individual's interest and musical training. For example those who are professional musicians and undertaken professional training would be expected to have music as part of their identity more than would a casual listener.

Music is a common means of self- and group expression, making a clear statement of our preferences, mood and values (Hargreaves et al. 2002). This view is shared by both Hallam (2005) and Green (2005b) who note that music acts as a cohesive factor between individuals and shape the identity of the group. In terms of preferences, music is used to establish relationships and social groups with others. Indeed,

the music we choose signal[s] many other non-musical aspects about ourselves, and that young people use their liking of particular forms of music to ally themselves with members of their peer group...music can act as a powerful badge of identity for adolescents, perhaps more than any other aspect of their lives, and that as such it represents a fundamental influence on their identities. (Hargreaves et al. 2002:17)

Musical culture is more complex and multifarious than simply belonging to a group. Hargreaves et al. (2002) consider that in order to boost self-esteem, people attempt to make positive connections with 'in-groups' and avoid 'out groups' to boost self concept. They note that each group attempts to make the difference between that group and others appear wide and apparent, attempting to create and maintain a "positive social identity by boosting the value of the in-group's attributes in comparison with members of out-groups" (Hargreaves et al. 2002:9). Which group is 'in' or 'out' is obviously a contextually and culturally based allocation: the concept of such groups is evident in the responses from the pupils at the Centre whereby the music pupils were labelled as 'buffs' by the mainstream pupils for their involvement in the Music School.

### **Self-directed learning and developing capability**

As indicated from the literature analysis in chapters 1-5, the development of talent requires encouraging environmental and contextual circumstances in addition to the individual's mindset, attitude or approach to the task(s) at hand. This was discussed in relation to the work of Cairns (1996), Hase (2000), Dweck (2006) and Bandura (1977) all of whom note the need for self-empowerment in the learning process and the opportunity to develop coping strategies and capabilities in different contexts. Areglado et al. (1996) and Malloch et al. (1998) consider that, in order to promote such development, there has to be a shift of focus or revitalisation of the current structures of learning, placing less emphasis on academic and grade-driven approaches and more emphasis on considering learning as a lifelong development (Areglado et al. 1996). There is, then, a need for a change in structure and approach to learning in order to promote the development of capabilities: there are many different ways to learn, therefore no single structure may be suitable for learning (Areglado et al. 1996). Instead, Malloch et al. (1998) and Areglado et al. (1996) believe that the focus should be on creating experiences that encourage and nurture the development of coping strategies. The concept of self-directed learning will be discussed in relation to the specialist school in this section of the chapter.

Although utilising different terminology, Malloch et al. (1998) and Areglado et al. (1996) express the same views about the development of capability: formalised or institution-based methods of learning may not be entirely suitable contexts for developing capabilities. Instead, 'real life' or practical experiences based within the context where they are likely to be used may prove more fruitful (Malloch et al. 1998). Areglado et al. (1996) believe that schools should be seen as places where baseline skills or 'competencies' – as Malloch et al., (1998), Hase (2000) and Cairns (1996) term them – are developed but also where the skills to become self-directed learners are nurtured. Areglado et al.'s (1996) research suggests that schools have placed too great an emphasis on the academic, achievement model rather than encouraging children to develop their metacognitive, questioning or creative abilities. They do not discount the role of formal education in fostering the development of capability in people, simply that the current educational structures found in schools and universities may not be conducive to this. The work of Areglado et al. (1996), Hase (2000) and Cairns (1996) would suggest that there is an overreliance on the development of academic skills and what individuals are required to know rather than how they can learn to best improve themselves.

Malloch et al. (1998) note that in order to promote the development of capability a more flexible approach to learning is useful, therefore the authors term this approach as 'flexible delivery'. This term encompasses

a number of distinct but related delivery methods. These include: flexible environment, distance education, audio-conferencing, computer based learning, computer managed learning, audiographics, problem based learning, workbased learning, open learning, video conferencing, flexi-mode, self paced learning, resource based learning, independent learning, multimedia, multiple entry and exit points, learner centred, and off campus approaches (Malloch et al., 1998:3).

It could be argued that many schools and institutions across the country employ a number of these methods already although, as indicated earlier in this section, it may be the way in which these resources and experiences are constructed and used which is different between specialist and mainstream environments.

However, Malloch et al. (1998) note the need for self-paced, independent learning and learner centred approaches, three terms which are also evident in the views held by Areglado et al. (1996). For Areglado et al. (1996), Malloch et al.'s (1998) conceptualisation is seen more as 'self-directed learning' (SDL). This is not a new idea, indeed this term is used in research discussed in chapter 4 by Cairns (1996) and Hase (2000). SDL is described by Areglado et al. (1996) as encouraging the learner to gain ownership of their learning, noting that

[s]tudents are self-directing to the degree that they actively participate in their own learning process – *metacognitively, motivationally, and behaviourally*...School experiences should be structured so students can teach themselves to control their attention, exhibit some control over their anxiety, and decide what information-processing techniques to use in learning what the teacher has assigned...SDL requires that students use a form of mental self-government. They receive assistance from principals and teachers, continually refining and using not only what they learn but how they learn...Self-directed learners plan, set goals, self-monitor, and self-evaluate. They select, structure, create, and invent scenarios and environments that maximise learning. They are aware of the relationship between *regulatory processes* (self-efficacy) and strategies to optimise these processes (intermediate goal-setting). They mentally file strategies that they can refer to for achieving learning outcome. They continually assess whether the strategy used is making them better learners, then alter the strategy or search their cognitive maps for a new one that will help them achieve the desired academic outcome. (Areglado et al., 1996:6-7)

In other words, empowering individuals to prepare them “to keep on acquiring knowledge” (Areglado et al., 1996:2). Areglado et al.'s quotation is important as it not only emphasises the need for lifelong learning and features of self-efficacy, but also bears a degree of resemblance to Renzulli's (1977) enrichment models (see chapter 3). For Renzulli (1977), the teacher's role changes in encouraging the interests of his/her pupils, moving from leader of learning to co-learner or facilitator of learning. Similarly, Areglado et al. (1996) note that the role of the teacher does change and this is what is the defining concept of the SDL experience: the pupil is in control and allowed to discover their own learning preferences rather than being led by an authority figure. The authors do note that, although teachers can understand the benefits of SDL, providing pupils with the opportunity to become self-directed learners can make practitioners cautious due to handing over control to the pupils.

Areglado et al. (1996) term teacher-led learning as the 'traditional' method. They note that teacher-directed learning experiences are often more academically focused, suitable for only a small number of pupils rather than accessible for a wider number. This has overtones of Renzulli's (1986) view of school-house giftedness (see chapter 4), where academic studies and attributes take precedence over other, more creative, forms of learning and experience. This more academic method of learning leads Areglado et al. (1996) to believe that traditional forms of learning are inflexible to a degree and may stifle creativity. More emphasis should be placed on the pupil as problem solver and exploring their cognitive strategies, Areglado et al. (1996) believe that the process of learning in an SDL environment can move away from teacher-led methods of learning and help promote pupil empowerment. The authors note that through

[a]n increased repertoire of learning strategies builds a self-confidence that provides maximum learning power...[u]ntil students develop a stable sense of positive self-identity reinforced by successful experiences, they cannot engage in the type of self-motivation that can generate the inner drive necessary to be self-directed learners. (Areglado et al.1996:5).

This view is important, not only for demonstrating the value of a SDL approach, but also in emphasising a link between high achievement and SDL. The authors note that the higher the self-belief and confidence in a task, the more likely that learning will continue and use these sensations to inform future experiences. In addition to this, and further supporting the role of self-efficacy in gifted and talented research, Areglado et al. (1996) point out that the development of multiple learning strategies can encourage and foster the development of self-efficacy. The authors believe that schools and classrooms which encourage this approach help the learner to realise their own personal goals at an earlier stage. A link can be made between the views of Areglado et al. (1996) and to the views of the pupils at the Centre. The pupils at the NCE considered that their needs would not have been met within a mainstream environment, noting that the provision within the Centre encouraged their interests and allowed for their skills and interests to be acknowledged and understood.

In relation to this case study, it would appear that the views expressed by Malloch et al. (1998) and Areglado et al. (1996) hold a degree of relevance in two ways: the opportunity for developing self-efficacy and capabilities, and the importance of the role of the teacher.

The models of learning proposed by the research of Malloch et al. (1998) and Areglado et al. (1996) stress that traditional or school-based methods of learning may not be conducive for all learners. This is not a new idea and has been highlighted earlier in this thesis through consideration of the work of Renzulli (1977) and Winstanley (2006) (see chapter 4). However, in relation to this research, the work of Malloch et al. (1998) and Areglado et al. (1996) is particularly relevant to the NCE case study. The first feature of capability development present in this case study is the Centre addressing the learner's needs. At the NCE, the learning needs of the pupils are recognised and accommodated with the support of specialist provision or access to opportunities. Whereas it is easy to believe that the pupils at the NCE are 'excellent' because of the opportunities, resources and specialist provisions, it could be argued that the audition process to gain access to the Centre is the most important factor as this has led to their needs and interests gaining more recognition than in the mainstream sector. This is noted by Areglado et al. (1996) as key feature of SDL, meeting the very basic needs of the learner, in this instance, satisfying the pupils' attitude and interest for musical learning or their potential for future development. The facilities and resources available at the Centre are only one part of the learning process, and, as Stollery and McPhee (2002) and McPhee et al. (2005) argue (see chapter 6 of this thesis) it is how the individual interprets and uses these to further their development that is important.

The second feature of capability learning present at the NCE is the mixed methods of learning. The Centre allows the pupils to learn in a number of different ways including group and individual work, as well as interaction with visiting tutors and the local community. All of this encourages the development of pupil self-efficacy and strategies for learning. This feature is also seen in Renzulli's Revolving Door Identification Model (RDIM) (Renzulli et al. 1981) which encourages a school-wide enrichment approach (see chapter 4), whereby learning is structured around interest and fostering future interest(s) regardless of age or stage. With regard to the Centre, the opportunities for group performance could be made more feasible (than in a mainstream school) by the small number of pupils, with the timetabling structure of NCE allowing for opportunities for such learning to occur both within the school day and in the pupils' private study time. During private study time, the NCE pupils are expected to work on their own studies – either for the mainstream lessons or for their musical studies. Arguably, this is replicated in a number of households throughout the country, however it is a timetabled requirement of

the Centre. Again, this aligns with the views of Malloch et al. (1998) and Areglado et al. (1996) in handing ownership and responsibility over to the learner.

The final feature of capability development in this case study is the role of the teacher in assisting the development of capability, self-efficacy and mindsets. The structure and experiences of the Centre are effective in promoting the development of the pupils' interests which, as Areglado et al.'s (1996) research would suggest, is largely the result of the perceptions and belief of the teachers and tutors involved. The staff have created opportunities which best challenge the pupils to benefit their development. The learning experiences and structure at the Centre encourage pupils to develop their knowledge of music and understand how they can contribute to the musical world. Teachers wish to encourage pupils to gain responsibility, to become involved in the musical scene and to develop their skills both as individuals and collectively.

The relationships, responsibilities and expectations of the pupils attending the Centre are similar to those at the same stage within the mainstream sector. However, the ways in which the process is undertaken is different, with more opportunity for self-empowerment rather than working towards exams. This was noted by the participating pupils themselves, as they consider their musical abilities to be largely overlooked in the mainstream (whereas the NCE provides them with the opportunity to develop their interests further). As Areglado et al. (1996) suggest, the teacher is key in the development of SDL and this again emphasises a potential need for CPD. While the need for CPD was highlighted earlier in this chapter, the focus was more on the development of the teacher's musical skills and teacher self-efficacy in music. The form of CPD required for Areglado et al.'s (1996) SDL places more emphasis on supporting teachers in creating self-empowering environments and coping with the redefining of their role in the learning process rather than on music-specific development.

## 12 Conclusion

The research discussed in this thesis aimed to provide greater insight into the identification and development of musically gifted and talented school pupils. After analysing all data, the thesis found there to be a ‘gap’ in the knowledge regarding the role of self-efficacy and capability in the development process. This thesis has emphasised the need for additional consideration of this ‘gap’, emphasising the importance of these two concepts in the development of high ability. The teacher’s role in building pupils’ self-efficacy is important. Teachers are required to plan learning activities which will help to develop pupils’ from their current level of ability. Unless pupils feel that they are making progress in a subject, in this case music, and are able to develop the ability which they have it could become a missed opportunity, overlooking potential for musical ability and may lead to pupils becoming less likely to engage in music.

The structure of the data collection was as follows: the literature review; Empirical Strand 1 (musicians/performers); Empirical Strand 2 (music teachers/instructors); Empirical Strand 3 (Conservatoire/University students); and Empirical Strand 4 (the NCE case study). The data gathered from these strands addressed the following research questions:

- 1a How is gift and talent conceptualised generally in literature?
- 1b How is gift and talent conceptualised by musicians, performers and teachers?
- 2 How is musical gift/talent identified?
- 3 How is musical ability nurtured?

Through addressing these research questions, this thesis broadens the definition and conceptualisation of musical gift and talent, and highlights the need to consider more fully the role of self-efficacy and capability in talent development. This thesis argues that learning is a holistic process: ability is not purely a matter of skills, technique and proficiency, but concerns emotions, nurture and resilience. It is in the discussion of the latter three issues that this thesis proposes its significant and original contribution.

### **How is gift and talent conceptualised in theory?**

The research literature conceptualises ‘giftedness’ as a refined and special ability, natural and largely present in only a select few. While there is some uncertainty and debate regarding the origin of the concept of giftedness, it is a much-revered attribute. On the other hand, ‘talent’ is deemed to be something that is developed over time (through access to training and learning processes). Unlike giftedness this is seen as a developed entity.

### **How is gift and talent conceptualised by musicians, performers and teachers/instructors?**

The participants did not like the terms ‘gift’ or ‘talent’ (particularly in relation to their own abilities). Although the participants from each of the contributing groups noted a dislike of terms, a conceptual hierarchy was present in their responses. This was similar to that of the research literature (Callahan 1997), with those who have a ‘*special*’, natural ability given more acclaim by their peers than and those who ‘*have to work hard at it*’. The participants did appreciate those who developed their skills and abilities over time, however they maintained a distinction between natural and developed ability.

### **How is musical ability identified?**

The findings show that there is no specific means of identifying individual musical ability. The participants’ responses demonstrate that no tests to identify their ability were used. However, in some genres, auditions were common (more so for those who had formalised training or were Classical musicians). These were generally used to gain entry to an institution. For the Pop/Jazz and Traditional music genres, opportunities to perform were considered to be important, as was using initiative to make your interest known.

### **How is musical ability nurtured?**

The nurturing process occurs over a number of contexts, both formal contexts led by a teacher, instructor or tutor as well as more informal, social gatherings with friends and like-minded individuals. Nurturing ability could also be self-led and self-initiated. Regardless of context, talent development is more about having access to sharing musical experiences and having the opportunity to perform with other musicians. Learning from

others via informal opportunities is as important for some as is taking formal lessons. All learning experiences, both formal and informal, help to develop coping skills and techniques, and are vital in igniting and maintaining passion and interest in the subject.

### **Relationship of the findings to established literature and research**

Much of the literature considers the identification and education of gifted and talented individuals in general terms or in subjects perceived to be 'academic' such as the sciences and mathematics or within a school-based context. Little in-depth research considers vocational abilities or expressive subjects. This thesis is important as it not only considers the processes which the individual utilises in order to become successful, gifted and/or talented in music, but also that the findings may be replicable across other domains and subjects. This research does this through extending the work of Stollery and McPhee (2002) and McPhee et al. (2005) on 'crystallising' and 'paralysing' factors. It does so through a more thorough examination of the psychological, practical and systemic issues involved in music talent development. After critiquing both the 2002 and 2005 papers, and considering these in relation to the participants in this research and to wider reading, it was judged that a broader view of 'factors which enhance' and 'factors which delimit' would be used to explore talent development since the original terms used by Stollery and McPhee ('crystallising' and 'paralysing') have overly negative connotations and suggest finality rather than suggesting a range of factors which can be seen as challenges or as obstacles to be overcome. This thesis also aligned the factors affecting talent development with the thoughts of Bandura (1977) on the role of self-efficacy in learning. This thesis therefore presents a more active conception of the learner in response to learning opportunities than does Stollery and McPhee (2002) and McPhee et al. (2005). While they acknowledge the role of 'conditions for musical excellence' this thesis argues that their overall conception of the learner is as too passive an agent in talent development processes. It is where there are appropriate contextual conditions, support and encouragement that development is most likely to occur, but the approach of the learner is crucial in terms of how they respond to the opportunities and how successfully they develop their talent. Through access to musical opportunities and appropriate support from teachers (in an informal or formal role), young people can be encouraged to develop learning skills as well as musical skills, and can develop strategies for understanding how best to develop their own abilities. By proposing these aspects, the research strengthens the importance of self-efficacy in the overarching concept of developing task capability. This approach is

supported by the responses from the participants which stress that self-efficacy and capability is indeed a key feature of talent development and learning process.

The teacher is in the position where he/she is able to create learning experiences which will extend the abilities of the children in their classrooms. The thesis recognises and develops their need to understand self-efficacy as well as understanding the idea that musical ability does not reside in a select few but in most, if not all children. Some children may not wish to develop their abilities to high levels but want to participate. Teachers should also be encouraged to become more aware that musical activities are not purely related to specialist schemes such as the Big Noise input in the Raploch area of Scotland but can be incorporated in the Primary curriculum. The Big Noise was a project run by El Sistema Scotland to promote music in an area undergoing urban redevelopment in Scotland, specifically the Stirling area of Raploch. There is an argument that music is important for all children: “Through music, learners have rich opportunities to be creative and to experience inspiration and enjoyment” (Scottish Government 2009). This emphasises that music is an important element of learning for all children regardless of levels of ability therefore music in Primary school is valuable. However, while the Government acknowledges the importance of music for children, curricular structuring, time constraints and indeed teacher confidence in this area means the subject and consequently pupil learning in this area may be limited in favour of key themes such as literacy and numeracy. Therefore teachers require an awareness of their own self-efficacy and an awareness that they also should be afforded the opportunity to readdress their ability to develop and nurture their own self-efficacy in music.

The findings suggest that there is a need to consider the learning needs of both pupils and teachers. In relation to the young people, the findings show that pupils can begin to develop a growth mindset if they are encouraged to participate and develop their musical skills and competencies, (Dweck, 2006).

In relation to school-based learning, while the case study presented in this thesis is from a specialist music school, the data gathered has important messages for mainstream provision. In order to foster capability in young musicians in mainstream schools,

opportunities to broaden their interests to appreciate music, increasing opportunities for performance and involvement in extra-curricular activities and encouraging the support of specialists from external musical companies and groups, for example Scottish Opera can all be incorporated within the current curriculum. The development of resilience and coping strategies is recorded by Silverman (2008) who notes, from her own research with an expert pianist, the importance of raising and maintaining a high level of self-efficacy as a vital component of musical development. She considers there to be three key elements which raise an individual's level of self-efficacy. These are:

- Steady growth in knowledge/skills at the right level of challenge;
- Steady growth in performance accomplishments;
- Encouraging growth of intrinsic motivation. (Silverman 2008).

Successfully considering each of these three elements in the development process will encourage a growth of self-worth, ability and enjoyment (Silverman 2008). This is similar to Winstanley's (2006) view of appropriate challenge, meeting the learning needs of each individual. However, where Winstanley (2006) notes appropriate challenge for general ability development, this thesis would support Silverman's view (2008) that appropriate challenge can also be used to raise the learner's self-efficacy and approach towards task(s) and activities in musical learning.

Goals and attainment targets are key features of any learning process, influencing performance, behaviour and emotions (Lacaille et al. 2007). This suggests that goals set by teachers or external requirements may solicit a negative response from young people, raising their anxiety towards their experience rather than raising their performance or enjoyment (Lacaille et al. 2007). By focussing on developing intrinsic goals, the individual would be less likely to perceive activities as 'threats' and would be more likely to achieve the goals which they set (Lacaille et al. 2007). This would suggest that in order to create more intrinsic-related, personalised goals the structures of the more formalised learning environments require adaptation or reconsideration of approach and strategies used in the teaching and learning process. It would appear from Lacaille et al. (2007) that pupils should be involved in their development through mutually agreeing goals with more knowledgeable others, with the challenges and goals set being at an appropriate level (so that development is encouraged) yet not so challenging that the goals are off-putting or

perceived as potential 'threats'. Moving learning intentions from proficiency and technical development to focus on personal growth supports a more holistic approach to learning, one which acknowledges the role of individual emotions and feelings.

Igniting and fostering the individual's intrinsic interest and resilience is important and can be supported by teachers (or indeed any interested individual(s) either within or outwith the formalised educational context) through creating opportunities, lessons and activities which are stimulating and at the level of 'need' of the learner. Although this appears at the surface level to be an easy task, it can be difficult to change a mindset, not only of the young person, but also the tutor or lesson leader (Dweck, 2006). Therefore, if a teacher feels unsure of structuring an experience to encourage the development of self-efficacy and capabilities, they too require adequate support. In order to do the practitioners will also require the opportunity to develop their own self-efficacy. This would suggest that there is a need for continuing professional development (CPD) within this area to encourage teachers to develop their own musical abilities, to create links with outside agencies and specialists (more so in the early years) and to understand their pupils needs in order to best support their development.

### **Recommendations for further research**

The thesis proposes two recommendations for further research. First, that there is a need to extend the case study to explore mainstream music provision. In terms of generalised ability, the findings would be important in the specific area of developing musical talent. This would present the opportunity to see if the findings from the NCE are replicated in the mainstream and also to provide additional insight into how best to encourage and foster musical talent in all pupils. Extending the study would allow for additional research into the approaches, structure and expectations of musically talented young people in all formalised school-based contexts.

In addition to consideration of widening the school-based focus of this research, a much broader perspective could be taken. The second recommendation of this thesis would therefore be to research the role of self-efficacy and capability across a range of areas in general, for example, within different subjects, occupations, professions and domains. This

would present the opportunity to see if the findings from this thesis regarding self-efficacy and capability are replicated in other areas such as leadership and learning at any level. Many of the attributes described by the participants were general and not specifically confined to music (see Table 8.1, chapter 8). This would suggest that developing coping strategies is a transferable process, almost akin to developing a baseline skill. Once the strategies have been learned, it allows an individual to approach any number of ‘challenges’ in any number of domain(s).

## **Conclusion**

Through analysis of established research literature, supported and supplemented by discussion of the original research data gathered from the participants, this thesis has highlighted that musical gift and talent is not related to a music-specific attribute. Nor, on the other hand, does it rely purely on chance, opportunity or access to resources. While these features may contribute to the development of high ability, it is how the individuals apply themselves in relation to the context for learning that is important. Application, hard work, resilience and capability development are all vital to talent development. This thesis takes the view that musical ability, or indeed high ability in any domain, can be developed in a wide range of learners (rather than only in a select few). The recommendations emphasised by this research suggest that to do this would require change, not just in subject content, but in the pedagogy, delivery, training and learning approaches used in music teaching. This thesis considers there to be three crucial views emerging from the data:

- That hard work, effort, resilience and self-efficacy are the main contributing factors to the development of high musical ability (rather than innate ‘giftedness’);
- That there is a need to raise teacher awareness of the role of learner self-efficacy and development of capability;
- There is a need for appropriate support in fostering pupil self-efficacy and teacher self-efficacy in musical activities.

Teachers should take the view that ability is latent within us all. It is through encouraging the development of teaching for high self-efficacy and capability that a flourishing of ability in a wider range of learners will be seen.

## Appendices

**Appendix 1: Interview schedules, questionnaires and  
focus group outline**

## **Appendix 1.1: Musicians/Composer questionnaire**

### **THEME 1: BACKGROUND**

What you do for a living / music career?

How was your ability recognised?

Was it formally identified?

Was it recognised by others?

At what age did people start to identify your ability?

When did you realise that you had ability?

In what context did you notice it?

### **THEME 2: FAMILY OR GROUP INVOLVEMENT?**

Is anyone else in your family involved in music? If so, what types?

What about musical experiences when you were young?

How did you get started as a musician / composer?

### **THEME 3: DEVELOPMENT**

From your involvement in music, how was your ability developed...

- *by family?*
- *by peers?*
- *by school?*
- *by music teacher(s)?*
- *by community?*
- *Other?*

Do you feel that anything was missing from your development? If so, what kind of development would you have wanted?

### **THEME 4: IDENTIFICATION**

How would you describe yourself in terms of your musical ability – would you say you are talented or gifted?

How would you define musical ability or gift?

How do you recognise musical ability in other musicians?

What skills do you expect to see in a talented musician / composer?

What is it about performing or composing that appeals to you and would you have chosen any other path?

### **END OF INTERVIEW QUESTIONS**

**Please use the space below if there is anything else which you would like to contribute in relation to your own musical experience and development.**

## **Appendix 1.2: Music Teachers/Instructors at School and Conservatoire**

### **THEME 1: BACKGROUND**

This research is looking at how we might identify musical gift and talent in children and young people. So first of all, how long have you been teaching for?

What made you want to be a music teacher?

### **THEME 2: CONCEPTUALISATION AND IDENTIFICATION**

How do you identify gift and talent in your students?

Do you use these terms? If not, what do you use?

What qualities do you look for?

What do you think is the best way to recognise gift / talent / **[own terminology]**?

Is there any optimum age to recognise gift / talent?

What are the benefits of identifying talent?

How does this affect your expectations of your students?

How do you teach so as to develop musical talent in pupils?

### **THEME 3: DEVELOPMENT**

After getting to know your students' level of ability, how do you advise / nurture students with talent?

Would you teach a talented or gifted pupil in a different way to one who showed less musical ability?

How do you advise students differently based on your perceptions of their ability?

What factors do you think encourage musical talent to develop?

Is there any optimum age to start the nurturing process?

What skills do you expect to see in a talented musician / composer?

**END OF INTERVIEW QUESTIONS**

**Please use the space below if there is anything else which you would like to contribute in relation to your own musical experience and development.**

## **Appendix 1.3: Programme Leaders/Course Co-ordinators (PLCs)**

### **THEME 1: CONCEPTUALISATION AND IDENTIFICATION**

Can I ask whether you would use the terms gifted or talented in your work?

If not, what terms do you use?

How do you identify gift and talent?

What attributes do you feel the identification process should look for?

How do you think gift / talent / **[their own terminology]** is best recognised?

Do you think that formal recognition of musical gift and talent is necessary? (yes / no)  
Please explain why you think this.

Is there an optimum age / period for identifying talent?

### **THEME 2: DEVELOPMENT**

What do you feel is the best way to develop talent?

What factors do you think encourage talent to develop?

What do you think the role of the teacher is in nurturing talent?

What skills do you think are expected from a gifted / talented musician?

### **END OF INTERVIEW QUESTIONS**

**Please use the space below if there is anything else which you would like to contribute in relation to your own musical experience and development.**

# Appendix 1.4: Conservatoire/University Student Questionnaire

Your answers are anonymous and confidential. Please leave anything blank which you do not feel comfortable answering.

## *Recognising and accommodating gift and talent in the Scottish secondary school music classroom.*

### STUDENT QUESTIONNAIRE

#### Section 1: Student / Course information

1. What is your age?
 

<b>20 or younger</b>	<input type="radio"/>	O1
<b>21-24</b>	<input type="radio"/>	O2
<b>25-29</b>	<input type="radio"/>	O3
<b>30-34</b>	<input type="radio"/>	O4
<b>35 or older</b>	<input type="radio"/>	O5
  
2. Are you
 

<b>Male</b>	<input type="radio"/>	O1	<b>Female</b>	<input type="radio"/>	O2
-------------	-----------------------	----	---------------	-----------------------	----
  
3. What is your principal study?
  
4. Which year are you in?
  
5. Are you an
 

<b>Undergraduate</b>	<input type="radio"/>	O1	<b>Postgraduate</b>	<input type="radio"/>	O2
----------------------	-----------------------	----	---------------------	-----------------------	----
  
6. Which course are you studying at the RSAMD?
  
7. What age did you start to play your principal study instrument?
  
8. At what age did you begin having formal music lessons?

9. Is anyone in your family involved in music? **Yes** 1 **No** 2

10. Have you attended any other music courses / institutions? If so, please give details.

11. How did your interest in music develop?

**Section 2: Recognising Musical Ability**

12. Roughly, at what age do you think people started to recognise your musical talent?

13. Who recognised your ability in music?

14. How was your ability in music recognised?

15. Did you have to sit any tests? If so, what did they involve?

16. How important were formal music lessons in developing your musical ability?

17. Do you consider yourself to be talented? If so, in which ways?

18. What skills do you expect from a talented musician / composer to show?

**Section 3: Developing and nurturing musical talent**

19. (a) Did you have a chance to take part in musical activities at school? **Yes**  **No**

(b) If yes, in which ways did they encourage your musical development if at all?

20. Did you have access to private tuition? **Yes**  **No**

21. Were you involved in any forms of enhanced training (e.g. Junior Academy, Cheetams School of Music, Douglas Academy Music School, etc)? **Yes**  **No**

22. If **YES**, please specify where

23. Have you undertaken any musical examinations outwith your RSAMD training or school education (Trinity, Associated Board, Guildhall, etc)? **Yes** 1 **No** 2

24. If **YES**, please state examination board(s)

25. Was this for **Music theory** 1 **Practical / Instrumental** 2 **Both** 3

26. Which grade(s) was the examination for?

27. Think about how your own musical ability was developed. How was your musical ability nurtured by

a) Family

b) Friends

c) Music teacher(s) / School

d) Other (please specify)

28. Do you think that anything was missing from your musical development?

**END OF QUESTIONNAIRE**

**Please use the space below if there is anything else which you would like to contribute in relation to your own musical experience and development.**

# Appendix 1.5A: Pupil Questionnaire

Your answers are anonymous and confidential. Please leave anything blank which you do not feel comfortable answering.

## *Recognising and accommodating gift and talent in the Scottish secondary school music classroom.*

### NATIONAL CENTRE OF EXCELLENCE PUPIL QUESTIONNAIRE

#### Section 1: Pupil information

- 1. Are you **Male** 1 **Female** 2
  
- 2. Which year are you in?  
**S4** 1  
**S5** 2  
**S6** 3
  
- 3. What are you studying?  
**Standard Grade / Intermediate** 1  
**Higher Music** 2  
**Advanced Higher Music** 3  
**A-Level / AS Level** 4  
**Other** 5
  
- 4. What do you consider to be your main instrument?  
(Please note, this also includes voice)
  
- 5. At what age did you start to play?
  
- 6. At what age did you start to play?
  
- 7. Is anyone else in your family involved in music? **Yes** 1 **No** 2
  
- 8. If so, please provide some details.

9. How long have you been at the National Centre of Excellence?

10. What types of musical activities are you involved in:

a. At school?

b. Outside of school / other?

**Section 2: Recognising Musical Ability**

11. Roughly, at what age do you think people started to recognise your musical talent?

12. Who recognised your ability in music?

13. How was your ability in music recognised?

14. Did you have to sit any tests? If so, what did they involve?

**Section 3: Developing and nurturing musical talent**

15. (a) Did you have music lessons outwith your school lessons? **Yes** 1 **No** 2

(b) If yes, please give details.

16. Have you ever/do you intend to take any musical examinations outwith your school education (Trinity, Associated Board, Guildhall, etc)? **Yes** 1 **No** 2

17. If **YES**, please state examination board(s).

18. Was this for **Music theory** 1 **Practical / Instrumental** 2 **Both** 3

19. Which grade(s) was the examination for?

20. Think about how your own musical ability was developed. How was your musical ability nurtured by

a) Family

b) Friends

c) Music teacher(s) / School

d) Other (please specify)

21. Do you intend/would you like to pursue a professional career in music?

Yes  1

No  2

Unsure  3

22. If so, in which area(s)?

23. What do you think makes music appeal to you?

**END OF QUESTIONNAIRE**

**Thank you for taking part in this questionnaire. Please use the space below if there is anything else which you would like to contribute in relation to your own musical experience and development.**

## **Appendix 1.5B: Focus group outline**

### **National Centre of Excellence (NCE) pupil focus group**

#### **Outline for session**

4 areas for exploration:

1. Qualities which make their favourite musician(s) appeal to them
2. When did you first notice that you had ability?
3. Who helped you develop your musical ability?
4. How important has formal music teaching / the Centre of Excellence been to you?

## **Appendix 2: Musical ability tests and methods for collecting data on musical ability**

These are extracts from five methods for identifying musical ability. These specific tests have been selected to demonstrate the development and evolution of testing methods over the years. They include variations of musical activities, tasks, checklists and nomination forms. The tests which are included are:

- The Bentley tests of musical ability (1966)
- Renzulli et al.'s (1976) Musical Characteristics Scale
- School of Instrumental Music (SIM) Musical Aptitude Indicator (2003-)
- Haroutounian's meta-analysis of tests of musical ability (1995-)
- The Performance Assessment for the Arts (PAAs) (2008-)

The first three tests discussed utilise little in the means of information from other sources such as parents, teachers or peers. The work of Haroutounian begins to bring in information from multiple sources such as teachers, parents, peers and the participant his/herself. Finally, the PAA represents a holistic method of assessment, integrating the elements of musicianship (performance, composition, listening) during assessment.

### ***Arnold Bentley (1966)***

The Bentley Measures of Musical Ability (The Bentley Test) is one of the notable tests of musical ability from the 20<sup>th</sup> century. Bentley's original pilot tests focussed on two traits: memory and pitch discrimination. The pitch discrimination test requires the students to listen to two notes and determine if the pitch is the same (S), goes up (U) or down (D).

***Appendix figure 2.1: Pilot pitch discrimination test (Bentley, 1966:53)***



The memory test assessed the participant's melody recall. Changes could be of both pitch and/or rhythm.

**Appendix figure 2.2: Pilot memory test (Bentley, 1966:54)**



The evaluation of the pilot studies identified some areas which required revision. In relation to the pitch discrimination, it was found that 60% of those tested were able to distinguish and recognise differences of a semitone. As a result, it was decided that in addition to semitones, the new pitch test would have ‘microintervals’ (intervals smaller than a semitone). These microintervals would be recorded and played to the participants through a recording in order to generate the smaller intervals. In terms of the memory test, the pilot study highlighted that the tonal and rhythmic memory elements should be measured separately with all tests of the same length. The main concern regarding the chord analysis test related to the minimum and maximum number of notes to be used (either 2-5 or 2-4 notes).

As a result of the pilot tests and evaluations, the new revised Bentley test therefore now consisted of four elements of musicianship: pitch discrimination, the now separate tonal and rhythmic memory tests and chord analysis (of 2-4 notes).

The tonal memory test utilises 10 ‘items’ (Bentley 1966) which are pairs of 5 note tunes.

**Appendix figure 2.3: Tonal memory**



Within the second half of the item one note is altered by either a whole tone or a semitone. Each of the items would be played twice, firstly straight through (without the note in the bracket), with the second playing the note in the bracket replacing the note which it is directly after. As can be seen in each of the examples above, the notes have been changed by one semitone. The participants are asked to state if the second playing of each pair is the same (S) or different (D), stating where, if any, change has occurred, for example in appendix figure 2.3 item 1: pitch 2. Bentley highlights within the test guidance that no items are the unchanged, however believes that the participant should be free to respond with 'same' if they wish.

The rhythmic memory test again consists of 10 pairs of items, however this time it is with four beat rhythmic figures the earlier test which had different numbers of beat and pitch (see appendix figure 2.2).

**Appendix figure 2.4: Rhythmic memory**



As with the previous tests, the participants are asked to state whether the second playing of each item is the same or different. If the second playing is different, the participant is to identify the beat which the change is found. In appendix figure 2.4 above, the changes for the second playing are found underneath the bar, at the second playing in item 1 the crotchet of beat 2 would be replaced by two quavers while in item 2 the triplet at beat 4 changes to two quavers.

The final component of the revised test was chord analysis. In terms of the analysis questions utilised in the pilot studies, the chords consisted of 2-5 notes. Interestingly, Bentley's (1966) evaluation recognised that participants were more accurate in identifying chords with 3-5 notes rather than those with 2.

**Appendix figure 2.5: Chord analysis tests (Bentley, 1966:78)**



In discussing the validity of his own tests it is interesting that Bentley acknowledges that there are particular difficulties. He believed that his measurements were useful at that time there was a concern in the variability and accuracy of teacher subjective judgements when working with children. Due to this, Bentley believed – supported by evidence in evaluating his own assessments – that his tests could be used to support teacher judgement and for selecting children for musical activities. In order to determine validity of the revised tests, Bentley piloted the tests on groups of professional musicians, graduates and scholars. However, while a participant has a high awareness of or engagement in music, it should not be assumed that he/she would perform well in an objective test. Piloting data collection instruments (as has been discussed in chapter 7) and determining validity is best conducted with a pilot group who have similar traits to the projected sample group. In this case children, not professional musicians. While piloting on professionals and adults could be seen as a good measure for validity as all participants have a high (or reasonably high) levels of activity in musical pursuits, in terms of contemporary research (such as those discussed in chapters 1-2) highlight that researchers are now more aware of cultural and biological factors which may influence how a participant may approach or be included in such a test.

***The Musical Characteristic Scale from the Scales for Rating the Behavioral Characteristics of Superior Students (Renzulli et al., 1976)***

Renzulli et al.'s (1976) Musical Characteristic Scale (MCS) formed one part of ten rating scales designed to help determine highly able students (the others being used to determine the learner's level of motivation, creativity, leadership, artistic, communication and

planning skills). The behaviours listed on each of the checklists were created through literature analysis by the researchers.

**Appendix figure 2.6: The Musical Characteristic Scale (Renzulli et al., 1976)**

The student...	Never	Very rarely	Rarely	Occasionally	Frequently	Always					
1. shows a sustained interest in music – seeks out opportunities to hear and create music	<input type="checkbox"/>										
2. perceives fine differences in musical tone (pitch, loudness, timbre, duration)	<input type="checkbox"/>										
3. easily remembers melodies and can produce them accurately	<input type="checkbox"/>										
4. eagerly participates in musical activities	<input type="checkbox"/>										
5. plays a musical instrument (or indicates a strong desire to)	<input type="checkbox"/>										
6. is sensitive to the rhythm of music; responds to changes in the tempo of music through body movements	<input type="checkbox"/>										
7. is aware of and can identify a variety of sounds heard at a given moment – is sensitive to ‘background’ noises, to chords that accompany a melody, to the different sounds of singers or instrumentalists in a performance	<input type="checkbox"/>										
Add column total:	<input type="checkbox"/>										
Multiply by weight:	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6					
Add weighted column totals:	<input type="checkbox"/>	+	<input type="checkbox"/>	+	<input type="checkbox"/>	+	<input type="checkbox"/>	+	<input type="checkbox"/>	+	<input type="checkbox"/>
Scale total:						<input type="checkbox"/>					

Of the seven characteristics listed on the checklist, three reflect student interest in musical activities (1, 4, 5), two are based on musical perception and discrimination (2, 3), pitch and one considers rhythm and pulse (6) and one represents tonal memory (7). While the information in the checklist is based on research literature, the length of the checklist and the characteristics are quite small. They may also be culturally biased towards particular sections of society or countries as Renzulli et al. did not state where the body of research literature was searched nor is there the opportunity for assessor to note additional characteristics. Another concern is that the checklist would require a teacher (or assessor with musical understanding) to be present and witness the behaviour in action before a box could be ticked. Similarly it does not give any indication as to the duration or depth of knowledge/skill displayed. This would also be a question of validity due to the subjectivity involved – what one teacher may consider as a frequent occurrence of a particular behaviour may not be viewed in the same way by another.

While checklists and basing methods of identification on known traits/skills displayed Renzulli et al.'s checklist are limited. However, while limited, Renzulli's methods are still popular and have inspired a number of different researchers for example, the work of Joanne Haroutounian whose work will be discussed later in this appendix.

### ***School of Instrumental Music (Instrumental & Vocal Music for Western Australian Government Schools, Australia)***

The School of Instrumental Music (SIM) assessments are specific to musical ability. Designed using a combination of both Bentley and Gordon methods of identifying and measuring musical ability, the SIM assessment consider that the scores attained on these tests are more formative with no summative grade allocated. The recommendation is that these tests are used as **one** part of an on-going process for selecting students for instrumental tuition. The creators are therefore of the opinion that this method of aural skill identification should not replace the Bentley and Gordon methods but can be used to supplement them nor should it be used as the only means of determining musical ability.

**Appendix figure 2.7: School of Instrumental Music (SIM) Musical aptitude indicator.**  
 Available at: [http://www.sim.iinet.net.au/pdf/mai\\_mark.pdf](http://www.sim.iinet.net.au/pdf/mai_mark.pdf)

# Musical Aptitude Indicator

Name: \_\_\_\_\_

School: \_\_\_\_\_ Year Level: \_\_\_\_\_

Today's Date: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Do you currently learn a musical instrument? YES / NO

If you answered YES, which instrument: \_\_\_\_\_

Of the instruments offered at my school, I would like to learn: \_\_\_\_\_

### Part 1 - Pitch

	Higher	Lower	Same
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Higher	Lower	Same

### Part 2 - Rhythm

	1	2	3	4	Same
1	<input type="checkbox"/>				
2	<input type="checkbox"/>				
3	<input type="checkbox"/>				
4	<input type="checkbox"/>				
5	<input type="checkbox"/>				
6	<input type="checkbox"/>				
7	<input type="checkbox"/>				
8	<input type="checkbox"/>				
9	<input type="checkbox"/>				
10	<input type="checkbox"/>				
	1	2	3	4	Same

### Part 3 - Tunes

	1	2	3	4	5	Same
1	<input type="checkbox"/>					
2	<input type="checkbox"/>					
3	<input type="checkbox"/>					
4	<input type="checkbox"/>					
5	<input type="checkbox"/>					
6	<input type="checkbox"/>					
7	<input type="checkbox"/>					
8	<input type="checkbox"/>					
9	<input type="checkbox"/>					
10	<input type="checkbox"/>					
	1	2	3	4	5	Same



Department of  
Education and Training

School of Instrumental Music

Musical Aptitude Indicator  
Version 2 - February 2003

(Do not write below this line)

Name:

1  2  3  Total

As per the PAA resources, the SIM assessments also provide a range of material for both teacher and pupil. SIM promote not only selective assessment, but also on-going formative and self-assessment.

***Joanne Haroutounian (1995; 2002)***

Haroutounian herself acknowledges that her own preference of recognising and developing musical ability is similar to that of Renzulli's enrichment models (see chapter 4). Her own contributions and views are more inclusive than those of the earlier methods of assessment. It would appear that she appreciates the value of information of the learner and those around them in addition to more on-going methods of assessment.

Haroutounian conducted research on content of tests of musical ability, synthesising and analysing the content and requirements in an attempt to generate an understanding of what tests actually attempted to uncover. The tests which Haroutounian has included in the table (appendix figure 2.8) are some of the most commonly used within musical circles.

**Appendix figure 2.8: Overview of selected music aptitude and ability tests (Haroutounian, 2002:292-3)**

Author(s)/dates	Grade/age	Title/Publisher	Contents	Time to administer	Reliability	Validity
C. Seashore, D. Lewis, J. Saetveit 1919-1960	Age 10-adult	<i>Seashore Measures of Musical Talents</i> New York: Psychological Corporation	<i>Discrimination:</i> pitch, time, timbre, dynamics  <i>Memory:</i> tone, rhythm <i>Interpretation:</i> consonance preference	1 hour	Pitch: .82-.84  Loudness: .64-.69  Rhythm: .64-.69  Time: .63-.72  Timbre: .55-.68  Tonal memory: .81-.84	Questionable, except for pitch, rhythm and tonal memory
J. Kwalwasser, P. Dykema 1931	Age 10-adult	<i>Kwalwasser-Dykema Music Tests</i> New York: Carl Fischer	<i>Discrimination:</i> pitch, time, timbre, dynamics  <i>Memory:</i> tone, rhythm  <i>Interpretation:</i> tonal movement, melodic taste  <i>Achievement:</i> tonal and rhythmic notation	1 hour	No information in test manual	Doubtful, except for discriminating most musical from least musical of a group
H.D. Wing 1939-61	Age 8-adult	<i>Standardized tests of musical intelligence</i> Sheffield, England: City of Sheffield Training College	<i>Memory:</i> tonal, pitch, chord  <i>Interpretation:</i> rhythmic, harmonic, dynamic, phrasing preferences	1 hour	Whole test .91  Tests 1-3, .89  Tests 4-7, .84	Good, with teachers' ratings .64-.90

**Appendix figure 2.8: Overview of selected music aptitude and ability tests (Haroutounian, 2002:292-3) (continued)**

Author(s)/dates	Grade/age	Title/Publisher	Contents	Time to administer	Reliability	Validity
E.T. Gaston 1957	Age 10-adult	<i>Test of Musicality</i> Lawrence, Kansas: Odell's Instrumental Service	<i>Memory:</i> musical, chord  <i>Interpretation:</i> tonal movement  <i>Achievement:</i> tonal and rhythmic notation	40 minutes	Age 10--14: .88 Age 14-16: .90 Age 16 +: .84	Association between teachers' ratings and scores significant at .05
A. Bentley 1966	Age 7-14	<i>Musical Abilities in Children and its Measurement</i> London: Harrap	<i>Discrimination:</i> pitch  <i>Memory:</i> tonal, rhythm, chord	20 minutes	Pitch: .74  Tonal memory: .53  Chord analysis: .71  Rhythmic memory: .57  Total: .84	Significant associations between test scores and teachers' estimates of musical ability
E. Gordon 1965	Age 10-17	<i>Musical Aptitude Profile</i> Chicago: GIA	<i>Memory:</i> melodic, harmonic, tempo, meter imagery  <i>Interpretation:</i> phrasing, tonal/rhythmic balance, style preferences	Each section takes 20 minutes  (2 hours 50 minutes in total)	Tonal imagery: .80-.92  Rhythm imagery: .82-.91  Sensitivity: .84-.90  Composite: .90-.96	Compared with achievement test: .73 composite score
E. Gordon 1979	Age 3-9	<i>Primary Measures of Music Audiation</i> Chicago: GIA	<i>Discrimination:</i> tonal, rhythmic	12 minutes per test  (24 minutes in total)	Tonal: .85-.89  Rhythm: .72-.76  Composite: .90-.92	Compared with instrumental achievement ratings: .73 composite score
E. Gordon 1982	Age 4-10	<i>Intermediate Measures of Musical Audiation</i> Chicago: GIA	<i>Discrimination:</i> tonal, rhythmic	12 minutes per test  (24 minutes in total)	Tonal: .72-.76  Rhythm: .70-.72  Composite: .80-.81	Compared with instrumental achievement ratings: .67-.70

**Appendix figure 2.8: Overview of selected music aptitude and ability tests  
(Haroutounian, 2002:292-3) (continued)**

Author(s)/dates	Grade/age	Title/Publisher	Contents	Time to administer	Reliability	Validity
E. Gordon 1989	Age 13- adult	<i>Advanced Measures of Musical Audiation</i>  Chicago: GIA	<i>Discrimination:</i> tonal, rhythmic	20 minutes	Tonal: .80- .86  Rhythm: .80-.87  Composite: .81-.89	Predictive validity studies available from publisher

It is interesting to see the similarities between the different tests in terms of content and skill for measurement as well as the range in validity and reliability. She considers her selection from the perspective as a teacher: what do I (as teacher) need to know? How can I do this effectively to promote the learning and teaching process?

Appendix figure 2.9 is a method of data collection created by Haroutounian's synthesis and critique of criteria for auditions. The majority of the elements are based on a Likert scale, with the assessor likely to have a good understanding of musical knowledge. A criticism would be that there is only a limited amount of space for 'other criteria' and that Haroutounian does not define 'potential'.

**Appendix figure 2.9: Haroutounian's Assessment of Musical Performance (2002:297)**

**Assessment of musical performance:** The list below represents common criteria used within auditions in specialised music programmes. If your audition process includes criteria not listed please fill it in at the bottom of the page.

Please rank each requirement from 1-5 according to its usefulness in assessing performance for the purposes of your programme.

5 Absolutely essential	4 Important	3 Helpful	2 Not necessary	1 Of no importance	X Unfamiliar term
	<input type="checkbox"/>	Rhythmic accuracy	<input type="checkbox"/>	Poised stage presence	
	<input type="checkbox"/>	Pitch/note accuracy	<input type="checkbox"/>	Originality	
	<input type="checkbox"/>	Appropriate tempo	<input type="checkbox"/>	Confident memory	
	<input type="checkbox"/>	Steady rhythmic pulse	<input type="checkbox"/>	Technical fluency	
	<input type="checkbox"/>	Sensitivity to mood	<input type="checkbox"/>	Detailed articulation/bowing	
	<input type="checkbox"/>	Creativity in interpretation	<input type="checkbox"/>	Stylistic awareness	
	<input type="checkbox"/>	Dynamic contrast	<input type="checkbox"/>	Tonal colour	

Other criteria: \_\_\_\_\_

**Assessment of musical potential:** The list below contains characteristics used within checklists and rating scales in assessing **potential** talent in music. Again rate these characteristics in the same manner as in the performance listing and add suggestions:

5 Absolutely essential	4 Important	3 Helpful	2 Not necessary	1 Of no importance	X Unfamiliar term
<input type="checkbox"/>		Shows sustained interest in musical activities	<input type="checkbox"/>	Is self critical: sets high standards	
<input type="checkbox"/>		Is highly creative	<input type="checkbox"/>	Evokes emotional responses from audience	
<input type="checkbox"/>		Shows commitment in arts area	<input type="checkbox"/>	Can sing well in tune	
<input type="checkbox"/>		Can perceive fine differences in musical tone (pitch, loudness, timbre)	<input type="checkbox"/>	Can remember melodies and reproduce them accurately	
<input type="checkbox"/>		Responds discriminately to rhythm, melody, harmony	<input type="checkbox"/>	Can identify a variety of sounds heard at a given moment	
<input type="checkbox"/>		Shows confidence in performing	<input type="checkbox"/>	Has a high degree of tonal memory	
<input type="checkbox"/>		Can express emotions through sound or music	<input type="checkbox"/>	Is self-disciplined	
<input type="checkbox"/>		Moves well to rhythm & music	<input type="checkbox"/>	Shows sensitivity to aesthetic elements of music-mood, style	
			<input type="checkbox"/>	Is gifted in academic areas	

Other suggestions: \_\_\_\_\_

Appendix figure 2.9 is another method/variation of the nomination form, however, this would appear to be for a tutor, teacher or more knowledgeable other who has an understanding of musical concepts. Unlike 2.11 where the Likerts were supplemented with narrative questions, 2.10 only offers room for unstructured additional (optional) comment.

**Appendix figure 2.10: Haroutounian's Indicators of Potential Talent in Music: observation rating scale (1995)**

Student name: \_\_\_\_\_ Age: \_\_\_\_\_ Grade: \_\_\_\_\_  
 School: \_\_\_\_\_ Type of class: \_\_\_\_\_  
 Person completing form: \_\_\_\_\_ Title: \_\_\_\_\_  
 You have known this student \_\_\_\_\_ years \_\_\_\_\_ months Date: \_\_\_\_\_

Please indicate how often the student listed above has shown the following behaviours by circling the appropriate number.

	1	2	3	4
	Seldom or never	Occasionally	Frequently	Almost always
<i>Aptitude and ability</i>				
1. Can remember and repeat melodies and rhythms.	1	2	3	4
2. Keeps a steady pulse and responds to subtle changes in rhythm and tempo of music.	1	2	3	4
3. Can hear small differences in melodies, rhythms, and sounds.	1	2	3	4
4. Can differentiate individual sounds in context: identifies patterns, melodies, instruments in a musical composition or specific environmental sounds.	1	2	3	4
5. Performs with accuracy and ease.	1	2	3	4
<i>Creative interpretation</i>				
6. Enjoys experimenting with sounds: making up songs and manipulating melodies and rhythms.	1	2	3	4
7. Is aware of slight changes in mood, loudness or softness, and sounds of different instruments in music.	1	2	3	4
8. Performs and reacts to music with personal expression: shows intensity and involvement with the music.	1	2	3	4
<i>Commitment</i>				
9. Shows perseverance in musical activities: works with focused concentration, energy and internal motivation.	1	2	3	4
10. Strives to refine musical ideas: sets high goals, constructively critiques musical work of others and self.	1	2	3	4

Please use the back of this form for further comments describing specific strengths or weaknesses of this student that would be helpful in determining the potential talent of this student in the area of music.

Appendix figure 2.11 is an example of recognising interest in and for musical activities. Information is gathered from both parent(s) and pupils through a range of Likert and short narrative responses. The test attempts to tap into the child's interests outwith the school environment. Another group who could have been consulted is the child's peers who would also provide additional information not privy to either teacher or parent.

**Appendix figure 2.11: Haroutounian's Musical Interest Form: Parent/Student Information (1995)**

**Musical Interest Form**

**Parent/Student Information**

Student name: \_\_\_\_\_ Age: \_\_\_\_\_ Grade: \_\_\_\_\_  
 School: \_\_\_\_\_ Teacher \_\_\_\_\_  
 Parent/Guardian: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address \_\_\_\_\_  
 City: \_\_\_\_\_ Zip: \_\_\_\_\_

Part A is completed by the parent/guardian: Part B is completed by the student.

**Part A**

**Parent/Guardian:** we want to learn what your child is doing outside of school and what types of musical activities or interests you have observed at home. Please circle the number that you feel most closely represents how often you observe your child in the following activities

1	2	3	4
Seldom or never	Occasionally	Frequently	Almost always

My child:

- |   |   |   |   |   |
|---|---|---|---|---|
| 1. Remembers and sings tunes from television, radio, records, tapes and so on                             | 1 | 2 | 3 | 4 |
| 2. Responds to the rhythm of music he hears by moving, clapping and so on                                 | 1 | 2 | 3 | 4 |
| 3. Is particularly sensitive to sounds of all kinds, music and everyday sounds                            | 1 | 2 | 3 | 4 |
| 4. Notices small details within a musical selection or in environmental sounds                            | 1 | 2 | 3 | 4 |
| 5. Enjoys performing for family and friends and performs with ease  | 1 | 2 | 3 | 4 |
| 6. Enjoys creating or experimenting with tunes, rhythms or sounds   | 1 | 2 | 3 | 4 |
| 7. Is aware of slight changes in mood, loudness or softness, and sounds of different instruments in music | 1 | 2 | 3 | 4 |
| 8. Sings, moves or reacts to music with expression  | 1 | 2 | 3 | 4 |
| 9. Shows focused concentration when listening or reacting to music  | 1 | 2 | 3 | 4 |
| 10. Enjoys reworking musical ideas  | 1 | 2 | 3 | 4 |

Describe musical activities your child enjoys outside of school, including church choir, music lessons, family activities and so on.

---



---



---



---

Please offer your own evaluation of your child’s musical interests and abilities.

---

---

---

Additional comments that may be helpful for us to know about your child.

---

---

---

**Part B**

To be completed by student. Please answer the following questions.

- 1. Do you play an instrument?  Yes  No  
 Name of instrument(s): \_\_\_\_\_ Years played \_\_\_\_\_  
 Do you  take private lessons? Teacher: \_\_\_\_\_  
 take group lessons? Teacher: \_\_\_\_\_  
 take lessons at school?  teach yourself?

- 2. Do you sing in a choir?  Yes  No Where? \_\_\_\_\_

- 3. Do you play in a band/orchestra?  Yes  No Where? \_\_\_\_\_

- 4. List three of your favourite songs, records or tapes.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 5. What musical activities do you like?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 6. Describe what you like best about the musical things you do.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

7. What other interests do you have?

---

---

---

---

8. What else would you like us to know about you?

---

---

---

---

From her meta-analysis of musical ability identification methods and her research on general gifted literature, Haroutounian was able to create and adapt an assortment of resources which could be used to promote, identify and develop musical ability from early years to adulthood. Her approach therefore sees the recognition and development of musical ability as involving an assortment of people and not relying purely on the judgements of one individual (the teacher).

***Office of Superintendent of Public Instruction (OSPI) Developed Performance Assessments for the Arts (Washington, United States of America) (2008-)***

The final extract provided is taken from the Performance Assessment for the Arts (PAAs) and form the basis of classroom based assessment for pupils. In other words, they are more holistic than the previous assessments conducted within the context of the classroom, and are contextualised in a particular task. The tests are used to promote engagement in the arts for all children at elementary, middle and high school levels. While the tests are not restricted for identifying gifted children, they are ‘open-ended’ to allow the teacher to recognise musical potential in activities. They are not structured to statistical measures nor do they separate the components of musicianship as has been seen in Seashore, Bentley and other previous tests. Each assessment utilises a variety of musicianship skills including sight-singing, notational exercises, solfege and composition with elements of music technology included too an aspect which is not present in the other tests discussed.

Within each activity and assessment pack, the teacher is provided with a particular rubric for identifying musical attributes. The teacher provided with clear guidelines regarding how to introduce the test and what to look for. The following criteria were used to assess the pupils’ creating (compositional) and responding (listening and interpretational) skills.

**Appendix figure 2.12: Performance Assessment for the Arts - Documentary Theme Song assessment rubrics (2008). Available at:**  
<http://www.k12.wa.us/arts/PerformanceAssessments/Music/Grade10-DocumentaryThemeSong.doc>

### Creating Rubrics (1.1, 1.2, 2.1)

4	A 4-point response: The student shows a thorough understanding of communicating for a specific purpose by meeting all of the four task requirements listed below: <ul style="list-style-type: none"> <li>• composes an original theme song with a minimum of two “related” instrumental lines,</li> <li>• composes an original theme song that includes one corresponding percussion line,</li> <li>• composes an original main theme song between 15 – 25 seconds in length, and</li> <li>• saves original main theme song so that it can be reviewed by others.</li> </ul>
3	A 3-point response: The student shows an adequate understanding of communicating for a specific purpose by meeting three of the four task requirements listed above.
2	A 2-point response: The student shows a partial understanding of communicating for a specific purpose by meeting two of the four task requirements listed above.
1	A 1-point response: The student shows a minimal understanding of communicating for a specific purpose by meeting one of the four task requirements listed above.
0	A 0-point response: The student shows no understanding of communicating for a specific purpose by meeting none of the four task requirements listed above.

### Responding Rubrics (1.1, 1.2, 2.3)

4	A 4-point response: The student shows a thorough understanding of communicating for a specific purpose by meeting all of the four task requirements listed below: <ul style="list-style-type: none"> <li>• identifies and describes with appropriate music vocabulary one musical element,</li> <li>• identifies and describes with appropriate music vocabulary another music element,</li> <li>• identifies and describes with appropriate music vocabulary a third musical element, and</li> <li>• identifies and describes how the instrumental and percussion lines complement one another.</li> </ul>
3	A 3-point response: The student shows an adequate understanding of communicating for a specific purpose by meeting three of the four task requirements listed above.
2	A 2-point response: The student shows a partial understanding of communicating for a specific purpose by meeting two of the four task requirements listed above.
1	A 1-point response: The student shows a minimal understanding of communicating for a specific purpose by meeting one of the four task requirements listed above.
0	A 0-point response: The student shows no understanding of communicating for a specific purpose by meeting none of the four task requirements listed above.

As noted earlier, while not gifted or high ability specific tests, the assessments are inclusive and contextualise the musical skills. They are recommended for use in conjunction with other methods of assessment with advice sought from the OSPI for students who are excelling.

The PAAs, of which music is only one component, have been adapted over the years due to concerns that they did not effectively take into consideration cultural nuances of minority groups, differences in learning styles and were deemed as expensive (Chew, 2008: online).

## References

- Anderson, G. & Arsenault, N. (1998) *Fundamentals of Educational Research*, 2<sup>nd</sup> Ed. London: Routledge Falmer.
- Areglado, R. J., Bradley, R. C. & Lane, P. S. (1996) *Learning For Life: Creating Classrooms For Self-Directed Learning* California: Corwin Press Inc.
- Aróstegui, J. L. (2003) 'On the Nature of Knowledge: What We Want and What We Get With Measurement in Music Education' in *International Journal of Music Education*, vol. 40, pp. 100-113.
- Baer, J. & Kaufman, J.C. (2004) 'Considering the DMGT: Something Old, Something New' in *High Ability Studies*, vol. 15, no. 2, pp.149-150.
- Baker, J. & Horton, S. (2010) 'A review of primary and secondary influences on sport expertise' in *High Ability Studies*, vol. 15, no. 2, pp.221-228.
- Bakker, A.B. (2005) 'Flow among music teachers and their students: The crossover of peak experiences' in *Journal of Vocational Behavior*, vol. 66, pp.26-44.
- Ballantyne, J. (2007) 'Integration, Contextualization and Continuity: Three themes For the Development of Effective Music Teacher Education Programmes' in *International Journal of Music Education*, vol. 25, no. 2, pp.160-1767.
- Bandura, A. (1977) 'Self-Efficacy: toward A Unifying theory of Behavioural Change' in *Psychological Review*, vol. 84, no. 2, pp.191-214.
- Bandura, A. (1982) 'The Psychology of Chance Encounters and Life Paths' in *American Psychologist*, vol. 37, no. 7, pp.747-758.
- Bandura, A. (1994) 'Self-Efficacy' in V. S. Ramachaudran (ed.) *Encyclopedia of Human Behavior*, pp.71-81. New York: Academic Press.
- Bandura, A. (2006) 'Autobiography: Albert Bandura' in M. G. Lindzey & W. M. Runyan (eds.) *Autobiography: A History of Psychology in Autobiography (vol. IX)*, pp.42-75. Washington, D.C.: American Psychological Association.
- Barab, S. A. & Plucker, J. A. (2002) 'Smart People Or Smart Contexts? Cognition, Ability, and Talent Development in An Age of Situated Approaches to Knowing and Learning' in *Educational Psychologist*, vol. 37, no. 3, pp.165-181.
- Bell, J. (2004) *Doing Your Research Project: A Guide For First-Time Researchers in Education and Social Science*. Maidenhead: Open University Press.
- Bentley, A. (1976) *Musical Ability in Children and Its Measurement*. London: Harrap.
- Borland, J. H. (1997) 'The Construct of Giftedness' in *Peabody Journal of Education*, vol. 72, Nos. 3 & 4, pp.6-19.
- Borland, J. H. (1999) 'The Limits of Consilience: A Reaction to Francoys Gagné's "My Convictions About the Nature of Abilities, Gifts, and Talents"' in *Journal For the Education of the Gifted*, vol. 22, no. 2, pp.137-148.
- Borland, J.H. (2005) 'Gifted Education Without Gifted Children: The case for no conception of giftedness'. In R. J. Sternberg and J. Davidson (eds.) (2005) *Conceptions of Giftedness*, 2<sup>nd</sup> Edt. Cambridge: Cambridge University Press.
- Borthwick, S. & Davidson, J.D. (2009) 'Developing a child's identity as a musician a family 'script' perspective' in R. MacDonald, D. Hargreaves and D. Miell (eds.) *Musical Identities*, pp.60-79. Oxford: Oxford University Press.
- British Educational Research Association (BERA) (2001) Mapping Music Education Research in the UK, in Music Education Research Group (ed.). Available at

- [www.bera.ac.uk/publications/pdfs/musicreview.pdf](http://www.bera.ac.uk/publications/pdfs/musicreview.pdf) (last accessed 12 September 2008).
- British Educational Research Association (BERA) (2004) Revised Guidelines for Educational Research. Available at: <http://www.bera.ac.uk/publications/guides.php>
- Butler, A., Lind, V.R & Constance, L. (2007) 'Equity and access in music education: conceptualizing culture as barriers to and support for music learning' in *Music Education Research*, vol. 9, no. 2, pp. 241-253.
- Cairns, L. (1996) 'Capability: Going Beyond Competence' in *Capability*, vol. 2, no. 2, pp.79-80.
- Callahan, C. M. (1997) 'The Construct of Talent' in *Peabody Journal of Education*, vol. 72, Nos. 3 & 4, pp.21-34.
- Chew, C. (2008) 'Why I took a stand against WASL and why the state should abandon it' in The Seattle Times, Thursday 8<sup>th</sup> May 2008. Available at: [http://seattletimes.nwsourc.com/html/opinion/2004398885\\_chew08.html](http://seattletimes.nwsourc.com/html/opinion/2004398885_chew08.html) (last accessed on 12 June 2011).
- Claxton, G. (2007) 'Expanding Young People's Capacity to Learn' in *British Journal of Educational Studies*, vol. 55 no. 2, pp.115-134.
- Claxton, G. & Meadows, S. (2008) *Brightening Up: How Children Learn to Be Gifted*, University of Bristol, Graduate School of Education).
- Cloonan, M. (2005) 'What is Popular Music Studies? Some observations' in *British Journal of Music Education*, vol. 22, no. 1, pp.77-93.
- Cohen, L. & Manion, L. (1980) *Research Methods in Education*. London: Croom Helm.
- Cohen, L. & Manion, L. (1994) *Research Methods in Education*. London: Routledge.
- Cohen, L., Manion, L. & Morrison, K. (2011) *Research Methods in Education* 7<sup>th</sup> ed. London: Routledge.
- Cooper, D. E. (1975) Quality and Equality in Education, in S. Brown (ed.) *Philosophers Discuss Education*. London: the Macmillan Press Ltd.
- Creech, A. & Hallam, S. (2003) 'Parent - Teacher - Pupil interactions in Instrumental Music Tuition: A Literature Review' in *British Journal of Music Education*, vol. 20, no. 1, pp.29-44.
- Creech, A. (2010) 'The role of music leaders and community musicians' in S. Hallam & A. Creech (eds.) (2010) *Music Education in the 21<sup>st</sup> Century in the United Kingdom: Achievements, analysis and aspirations*. London: Institute of Education, University of London.
- Cross, I. & Morley, I. (2002) 'Music and evolution: the nature of the evidence', In C. Stevens, D. Burnham, G McPherson, E. Schubert and J. Renwick *Proceedings of the 7th International Conference on Music Perception and Cognition*, Adelaide: Causal Productions, 2002, pp. 416-419.
- Csikszentmihalyi, M. (1996) *Creativity: Flow and the Psychology of Discovery and Invention*. New York: Harper Perennial.
- Cultural Commission (2005) *Our Next Major Enterprise...: Final Report of the Cultural Commission*. Available at <http://www.culturalcommission.org/cultural/files/final%20final%20report%20june%202005.pdf> (last accessed 27 July 2009).
- Dai, D. Y., Moon, S. M. & Feldhusen, J. F. (1998) 'Achievement Motivation and Gifted Students: A Social Cognitive Perspective' in *Educational Psychologist*, vol. 33, no. 2, pp.45-62.
- Dai, D. Y. & Renzulli, J. S. (2008) 'Snowflakes, Living Systems, and the Mystery of

Giftedness' in *Gifted Child Quarterly*, vol. 52, no. 2, pp.114-130.

- Dai, D. Y. & Schader, R. M. (2002) 'Decisions Regarding Music Training: Parental Beliefs and Values' in *Gifted Child Quarterly*, vol. 46.
- Davidson, J. W., Howe, M. J. A. & Sloboda, J. A. (2000) 'Environmental Factors in the Development of Musical Performance Skill Over the Life Span' in D. J. Hargreaves & A. C. North (eds.) *the Social Psychology of Music*. Oxford: Oxford University Press.
- Davidson, J. W. & Pitts, S. E. (2001) 'People Have Talents': A Case Study of Musical Behaviour in An Adoptive Family' in *British Journal of Music Education*, vol. 18, no. 2, pp.161-171.
- Delisle, J. R. & Renzulli, J. S. (1982) 'The Revolving Door Identification and Programming Model: Correlates of Creative Production' in *Gifted Child Quarterly*, vol. 26, no. 2, pp.89-94.
- Denzin, N. K. (1994) 'The Art and Politics of Interpretation' in N. Denzin & Y. S. Lincoln (eds.) *Handbook of Qualitative Research*. London: Sage.
- Dweck, C. S. (2000) *Self-Theories and Goals: Their Role in Motivation, Personality and Development*. East Sussex: Psychology Press.
- Dweck, C. S. (2006) *Mindset: the New Psychology of Success - How We Can Learn to Fulfil Our Potential*. New York: Ballantyne Books.
- Esquivel, G. B. (1995) 'Teacher Behaviours That Foster Creativity' in *Educational Psychology Review*, vol. 7, no. 2, pp.185-202.
- Feldheusen, J. F. (2004) 'Transforming Gifts into Talent: the DMGT theoretical Model – A Response' in *High Ability Studies*, vol. 15, no. 2, pp.151-152.
- Feldheusen, J. F. (2005) 'Giftedness, Talent, Expertise and Creative Achievement'. In R. J. Sternberg and J. Davidson (eds.) (2005) *Conceptions of Giftedness*, 2<sup>nd</sup> Edt. Cambridge: Cambridge University Press.
- Feldman, D. H. (1999) 'A Developmental, Evolutionary Perspective On Gifts and Talents' in *Journal For the Education of the Gifted*, vol. 22, no. 2, 10.
- Flick, U. (1998) *An Introduction to Qualitative Research*. London: Sage Publications.
- Flick, U., Von Kardorff, E. & Steinke, I. (eds.) (2004) *A Companion to Qualitative Research*. London: Sage Publications.
- Folkestad, G. (2006) Formal and Informal learning situations or practices vs formal and informal ways of learning in *British Journal of Music Education*, vol. 23, no. 2, pp.135-145.
- Folkestad, G. (2009) 'National Identity in Music' in R. MacDonald, D. Hargreaves and D. Miell (eds.) *Musical Identities*, pp.60-79. Oxford: Oxford University Press.
- Freeman, J. (2001) *Gifted Children Grown Up*. London: David Fulton Publishers Ltd.
- Freeman, J. (2005) 'Permission To Be Gifted: How Conceptions Of Giftedness Can Change Lives'. In R. J. Sternberg and J. Davidson (eds.) (2005) *Conceptions of Giftedness*, 2<sup>nd</sup> Edt. Cambridge: Cambridge University Press.
- Gagné, F. (1995a) 'From Giftedness to Talent: A Developmental Model and its Impact on the Language of the Field' in *Roepers Review*, vol. 18, no. 2, pp.103-111.
- Gagné, F. (1995b) 'Hidden Meanings of the Talent Development' in *Educational Forum*, vol. 59, no. 4, pp.350-361.
- Gagné, F. (1999) 'My Convictions About the Nature of Abilities, Giftedness and

Talents' in *Journal For the Education of the Gifted*, vol. 22, no. 2, pp.109-136.

- Gagné, F. (2000a) 'A Differentiated Model of Giftedness and Talent: Year 2000 Update', *Opinion Papers*, 5. Available at [http://eric.ed.gov/ericdocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/16/bf/70.pdf](http://eric.ed.gov/ericdocs/data/ericdocs2sql/content_storage_01/0000019b/80/16/bf/70.pdf) (last accessed 26 September 2007)
- Gagné, F. (2000b) 'How Many Persons Are Gifted Or Talented?' in *Understanding Our Gifted*, Winter, pp.10-14.
- Gagné, F. (2004) 'Transforming Gifts into Talents: the DMGT As A Developmental theory' in *High Ability Studies*, vol. 15, no. 2, pp.119-128.
- Gagné, F. (2007) 'Ten Commandments For Academic Talent Development' in *Gifted Child Quarterly*, vol. 51, no. 93, pp.93-118.
- Gagné, F. (2008) Building Gifts into Talents: Brief Overview of the DMGT 2.0. Available at [http://nswagtc.org.au/images/stories/infocentre/dmgt\\_2.0\\_en\\_overview.pdf](http://nswagtc.org.au/images/stories/infocentre/dmgt_2.0_en_overview.pdf) (last accessed 20 November 2009).
- Gall, M. D., Gall, J. P. & Borg, W. R. (2007) *Educational Research An Introduction*. Boston: Pearson International.
- Gardner, H. (1983b) *Frames of Mind: The Theory of Multiple Intelligences*. London: Heinemann.
- Gembris, H. & Davidson, J. (2002) 'Environmental influences' in R. Parncutt & G. McPherson (eds.) *The Science and Psychology of Music Performance*. New York: Oxford.
- Gladwell, M. (2008) *Outliers: the Story of Success*. London: Penguin Books Ltd.
- Golafshani, N. (2003) 'Understanding Reliability and Validity in Qualitative Research' in *the Qualitative Report*, vol. 8, no. 4, pp.597-606.
- Gottfried, A. E. & Gottfried, A. W. (2004) 'toward the Development of A Conceptualization of Gifted Motivation' in *Gifted Child Quarterly*, vol. 48, no. 2, pp.121-132.
- Green, L. (2002) *How Popular Musicians Learn: A Way Ahead For Music Education*. Hants: Ashgate Publishing.
- Green, L. (2005a) *Meaning, Autonomy and Authenticity in the Music Classroom*. London: institute of Education.
- Green, L. (2005b) 'Music in Society and Education' in C. Philpott & C. Plumeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Green, L. (2008a) *Music, Informal Learning and the School: A New Classroom Pedagogy*. Aldershot: Ashgate Publishing Company.
- Green, L. (2008b) *Music on Deaf Ears: Musical Meaning, Ideology and Education (revised 2nd edition)*. Bury St. Edmunds: Abramis Publishing.
- Green, L. (2010) *How Popular Musicians Learn: A Way Ahead For Music Education (issued in 2002 as paperback)*. London and New York: Ashgate Press.
- Grigorenko, E. (2007) Schooling today: Teaching Competence, Creativity, and Compassion, *World Council for the Gifted* (Warwick, Conference Keynote, July 2007).
- Grobman, J. (2006) 'Underachievement in Exceptionally Gifted Adolescents and Young Adults: A Psychiatrist's View' in *The Journal of Secondary Gifted Education*, vol. 17, no. 4, pp.199-210.

- Grogan, M. & Simmons, J. M. (2007) 'Taking A Critical Stance in Research' in A. R. J. Briggs & M. Coleman (eds.) *Research Methods in Educational Leadership and Management*. London: Sage.
- Guenther, Z. C. (2004) 'Transforming Gifts into Talents: the DMGT as a Developmental theory - A Response' in *High Ability Studies*, vol. 15, no. 2, pp.165-166.
- Hallam, S. (2002) 'Musical Motivation: towards A Model Synthesising the Research' in *Music Education Research*, vol. 4, no. 2, pp.225-245.
- Hallam, S. (2005) 'Learning in Music' in C. Philpott & C. Plumeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Hallam, S. (2006) *Music Psychology in Education*. London: Institute of Education, University of London.
- Hallam, S. (2010a) 'The power of music: its impact on the intellectual, personal and social development of children and young people' in S. Hallam & A. Creech (eds.) (2010) *Music Education in the 21<sup>st</sup> Century in the United Kingdom: Achievements, analysis and aspirations*. London: Institute of Education, University of London.
- Hallam, S. (2010b) '21<sup>st</sup> century conceptions of musical ability' in *Psychology of Music*, vol. 38, pp. 308-330.
- Hardy, M. & Heyes, S. (1986) *Beginning Psychology*. London: Weidenfeld and Nicolson.
- Hargreaves, D. (1986) *The Developmental Psychology of Music*. Cambridge: Cambridge University Press.
- Hargreaves, D. J. & Marshall, N. A. (2003) 'Developing Identities in Music Education' in *Music Education Research*, vol. 5, no. 3, pp.263-274.
- Hargreaves, D. J., Miell, D. & MacDonald, R. A. R. (2002) 'What Are Musical Identities, and Why Are they Important?' in R. A. R. MacDonald, D. J. Hargreaves & D. Miell (eds.) *Musical Identities*. Oxford: Oxford University Press.
- Hargreaves, D. J., Welch, G., Purves, R. & Marshall, N. (2003) 'the Identities of Music Teachers' in R. Kopiez, A. Lehmann, I. Wolther & C. Wolf (eds.) *5th Triennial ESCOM Conference* (Hanover University, Germany).
- Haroutounian, J. (1995) *The Assessment of Potential Talent in Musical Behavior/Performance: Criteria and Procedures to consider in the identification of musically gifted and talented students*. University of Virginia: PhD dissertation
- Haroutounian, J. (2002) *Kindling The Spark: Recognizing and Developing Musical Talent*. Oxford: Oxford University Press.
- Hase, S. (2000) *Capability and Coping in the New Millennium: A Critical Challenge For Education, Universities, Colleges and Sustainable Health Conference* (Preston, England).
- Heaton, J. (1998) Secondary analysis of qualitative data. Available at <http://sru.soc.surrey.ac.uk/SRU22.html> (last accessed 18th January 2011)
- Her Majesty's Stationery Office (HMSO) (2004) *Education (Additional Support For Learning) (Scotland) Act (2004)*. Available at [http://www.opsi.gov.uk/legislation/scotland/acts2004/asp\\_20040004\\_en\\_1](http://www.opsi.gov.uk/legislation/scotland/acts2004/asp_20040004_en_1) (last accessed 26 June 2008).
- Holden, H. & Button, S. (2006) 'The Teaching of Music in the Primary School by the Non-Specialist' in *British Journal of Music Education*, vol. 23, no. 1, pp.23-37.
- Howe, M. J. A. (1990) *Sense and Nonsense About Hothouse Children*. Leicester: BPS

## Books.

- Howe, M. J. A. (1998) *Principles of Abilities and Human Learning*. Sussex: Psychology Press.
- Howe, M. J. A. (2000) *I.Q. in Question: the Truth About Intelligence*. London: Sage Publications.
- Howe, M. J. A. & Sloboda, J. (1991a) 'Young Musicians' Accounts of Significant influences in their Early Lives. 1. The Family and the Musical Background' in *British Journal of Music Education*, vol. 8, pp.39-51.
- Howe, M. J. A. & Sloboda, J. (1991b) Young Musicians' Accounts of Significant influences in their Early Lives. 2. Teachers, Practising and Performing, *British Journal of Music Education*, vol. 8, pp.53-62.
- IPF (2005) Report On the Costs and Funding of Scotland's Nine Centres of Excellence. Available at <http://www.scotland.gov.uk/topics/education/schools/excellence/costsandfunding> (last accessed on 20 June 2009).
- Johnsen, S. K. (1999) 'Renzulli's Model: Needed Research' in *Journal for the Education of the Gifted*, vol. 23, no. 1, pp.102-116.
- Jonathan, R. (1988) The Notion of Giftedness – of, 'How Long is a Piece of String?' in *British Journal of Educational Studies*, vol. 26, no. 2. pp.111-125.
- Kamin, S., Richards, H. & Collins, D. (2007) 'influences On the Talent Development Process of Non-Classical Musicians: Psychological, Social and Environmental influences' in *Music Education Research*, vol. 9, no. 3, pp.49-67.
- Kemp, A. E. & Mills, J. (2002) *Musical Potential*. Oxford: Oxford University Press.
- Kersting, K. (2003) 'What music's gatekeepers seek in Musicians' in *Monitor in Psychology*, vol.34, no.9, p.17. Available at: <http://www.apa.org/monitor/oct03/gatekeepers.aspx>
- Kidd, P. S. & Parshall, M. B. (2000) 'Getting the Focus and the Group: Enhancing Analytical Rigor in Focus Group Research' in *Qualitative Health Research*, vol. 10, no. 3, pp.293-307.
- Kitzinger, J. (1995) 'Qualitative Research: introducing Focus Groups' in *British Medical Journal*, vol. 311, pp.299-302.
- Koopman, C. (2007) 'Community Music As Music Education: On the Educational Potential of Community Music' in *International Journal of Music Education*, vol. 25, no. 2, pp.151-162.
- Lacaille, N., Koestner, R. & Gaudreau, P. (2007) 'On the Value of intrinsic Rather Than Traditional Achievement Goals For Performing Artists: A Short-Term Prospective Study' in *International Journal of Music Education*, vol. 25, no. 3, pp.235-242.
- Lamont, A. (2009) 'Musical identities and the school environment' in R. MacDonald, D. Hargreaves and D. Miell (eds.) *Musical Identities*, pp.41-60. Oxford: Oxford University Press.
- Le Gallais, T. (2003) 'From Native to Stranger...and Back Again?: Reflections of An inside Out Researcher!' Paper Presented Available at *British Educational Research Association* (Heriot-Watt University, Edinburgh). Available at <http://www.leeds.ac.uk/educol/documents/00003363.htm> (last accessed 15 April 2008).
- MacDonald, R., Hargreaves, D & Miell, D. (eds.) (2009) *Musical Identities*. Oxford: Oxford University Press.

- Maclean, A. (2003) *the Motivated School*. London: Paul Chapman Publishing.
- MacNamara, A., Holmes, P. & Collins, D. (2006) The pathway to excellence : the role of psychological characteristics in negotiating the challenges of musical development. *British Journal of Educational Studies*, vol. 23, no. 3, pp.285-302.
- MacNamara, Á., Holmes, P. & Collins, D. (2008) Negotiating transitions in musical development: the role of psychological characteristics of developing excellence. *Psychology of Music* vol. 36, no.3, pp.335–352.
- Malloch, M., Cairns, L. & Hase, S. (1998) 'Learning in the Workplace: Implications of the Capability Learning Model' Available at *American Educational Research Association, Annual Meeting* (San Diego).
- McCoach, D. B., Kehle, T. J., Bray, M. A. & Siegle, D. (2001) 'Best Practices in the Identification of Gifted Students With Learning Disabilities' in *Psychology in the Schools*, vol. 38, no. 5, pp.403-411.
- McPhee, A. D., Stollery, P. & McMillan, R. (2005) 'the Wow Factor? A Comparative Study of the Development of Student Music Teachers' Talents in Scotland and Australia' in *Educational Philosophy and theory*, vol. 37, no. 1, pp.105-117.
- Meno, L. I. (2006) 'E-Mail interviewing in Qualitative Research: A Methodological Discussion' in *Journal of the American Society For information, Science and Technology*, vol. 57, no. 10, pp.1283-1294.
- Miller, J. & Duesenberry, P. (2007) Where Are they Now? the First Graduates of the BA (Scottish Music) Degree, Royal Scottish Academy of Music and Drama. Available at <http://www.palatine.ac.uk/events/viewdoc/228/> (last accessed 20 June 2008).
- Mills, J. (2007) *instrumental Teaching*. Oxford: Oxford University Press.
- Miyake, N. (1986) Constructive Interaction and the Iterative Process of Understanding in *Cognitive Science*, Vol .10, no. 2, pp.151-177.
- Mönks, F.J. & Ferguson, T.J. (1982) Gifted adolescents: an analysis of their psychosocial development in *Journal of Youth and Adolescence*, Vol. 12, No. 12, pp.1-18.
- Mönks, F.J./ & Katzko, M.W. (2005). Giftedness and Gifted Education. In R.J. Sternberg & J.E. Davidson (Eds.), *Conceptions of Giftedness* (pp.187-200). Cambridge, MA: Cambridge University Press.
- Montgomery, D. (2010) 'Gifted and Talented Children with Special Educational Needs: Lifting Underachievement in Dual and Multiple Exceptionalities'. In B. Wallace, S. Leyden, D. Montgomery, C. Winstanley, M. Pomerantz, and S. Fitton (2010) *Raising the Achievement of All Pupils Within an Inclusive Setting: Practical strategies for developing Best Practice*. London: Routledge.
- Moon, S. (2003) 'Personal Talent' in *High Ability Studies*, vol. 14, no. 1, pp.5-21.
- Moorey, G. (2007) 'Music, identity and oblivion' in *Networking Knowledge: Journal of the MeCCSA Postgraduate Network*, Vol 1, No 2, pp.1-16.
- Munro, A. (1996) *The Democratic Muse: Folk Music Revival in Scotland*. Aberdeen: Scottish Cultural Press.
- Murrell, P. (no date) 'Defining the Community Teacher'. Available at: [s.b5z.net/i/u/10091736/f/MurrellConceptPaper.pdf](http://s.b5z.net/i/u/10091736/f/MurrellConceptPaper.pdf)
- O'Hagan, T. (1975) 'Quality and Equality in Education' in S. Brown (ed.) *Philosophers Discuss Education*. London: the Macmillan Press Ltd.
- O'Neill, S. A. (2002) 'The Self-Identity of Young Musicians' in R. A. R. MacDonald, D. J. Hargreaves & D. Miell (eds.) *Musical Identities*. Oxford: Oxford University Press.
- O'Neill, S. A. & McPherson, G., E. (2002) 'Motivation' in R. Parncutt & G.

McPherson (eds.) *the Science and Psychology of Musical Performance: Creative Strategies For Teaching and Learning*. Oxford: Oxford University Press.

- Office of Superintendent of Public Instruction (OSPI) (2008) Developed Performance Assessments for the Arts. *Documentary Theme Song*. Available at: <http://www.k12.wa.us/arts/PerformanceAssessments/Music/Grade10-Documents/DocumentaryThemeSong.doc> (lasted accessed on 12 June 2011).
- Olszewski-Kubilius, P. (1998) 'Developing the Talents of Academically Gifted High School Students: Issues For Secondary School Administrators' in *NASSP Bulletin*, vol. 82, no. pp.85-92.
- Olszewski-Kubilius, P. (1999) 'A Critique of Renzulli's Theory into Practice Models For Gifted Learners' in *Journal for the Education of the Gifted*, vol. 23, no. 1, pp.55-64.
- Ostatnikova, D. (2004) 'Internal Environment and the Role of Hormones in the Development of Natural Abilities' in *High Ability Studies*, vol. 15, no. 2, pp.163-164.
- Pendarvis, E., Howley, C. & Howley, A. (1999) 'Renzulli's Triad: School For Work For Gifted Students' in *Journal For the Education of the Gifted*, vol. 23, no. 1, pp.75-84.
- Philpott, C. (2005) 'Equality of opportunity and instrumental tuition' in C. Philpott & C. Plummeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Pickard, A and Bailey, R (2009) Crystallising experiences among young elite dancers in *Sport, Education and Society* vol. 14, no. 2, May 2009, pp.165-181.
- Pitts, S. (2000) 'Reasons to Teach Music: Establishing A Place in the Contemporary Curriculum' in *British Journal of Music Education*, vol. 17, no. 1, pp.31-39.
- Plucker, J. A. & Renzulli, J. S. (1999) 'Psychometric Approaches to the Study of Human Creativity' in R. J. Sternberg (ed.) *Handbook of Creativity* (Cambridge: Cambridge University Press).
- Plummeridge, C. (2001) 'the Place of Music in the School Curriculum' in C. Philpott (ed.) *Learning to Teach Music in the Secondary School* (London: Routledge Falmer).
- Porath, M. (2004) 'Transforming Gifts into Talents: the DMGT as a Developmental Theory - A Response' in *High Ability Studies*, vol. 15, no. 2, pp.153-155.
- Porter, L. (1999) *Gifted Young Children: A Guide for Teachers and Parents*. Buckingham: Open University Press.
- Potter, S. (2006): *Doing Postgraduate Research*, London: Sage.
- Powney, J. & Watts, M. (1987) *interviewing in Educational Research*. London: Routledge and Keegan Paul.
- Reis, S. M. (2003) 'The Underachievement of Gifted Students: Multiple Frustrations and Few Solutions' in *Gifted and Talented: the Journal of the National Association For Gifted Children (England)*, vol. 7, no. 2, pp.23-33.
- Renzulli, J. S. (1977) *The Enrichment Triad Model: A Guide For Developing Defensible Programs for the Gifted and Talented*. Connecticut: Creative Learning Press.
- Renzulli, J. S. (1978) 'What Makes Giftedness? Reexamining A Definition' in *Phi Delta Kappan*, vol. 60, no. 3, pp.180-185.
- Renzulli, J. S. (1984) 'The Triad/Revolving Door System: A Research-Based Approach to Identification and Programming for the Gifted and Talented' in *Gifted Child Quarterly*, vol. 28, no. 4, pp.163-170.

- Renzulli, J. S. (1986) 'the Three-Ring Conception of Giftedness: A Developmental Model For Creative Productivity' in R. J. Sternberg & J. E. Davidson (eds.) *Conceptions of Giftedness*. (Cambridge: Cambridge University Press).
- Renzulli, J. S. (1998) The Three-Ring Conception of Giftedness. Available at: <http://www.sp.uconn.edu/~nrcgt/sem/semart13.html> (last accessed 28 August 2007).
- Renzulli, J. S., Gentry, M. & Reis, S. M. (2007) 'Enrichment Clusters For Developing Creativity and High-End Learning' in *Gifted and Talented International*, vol. 22, no. 1, pp.39-46.
- Renzulli, J. S. & Reis, S. M. (2007) the Schoolwide Enrichment Model Executive Summary, in U. S. Department of Education. Available at <http://www.gifted.uconn.edu/sem/semexec.html> (last accessed 20 January 2007).
- Renzulli, J. S., Reis, S. M. & Smith, L. H. (1981) *The Revolving Door Identification Model*. Connecticut: Creative Learning Press, Inc.
- Renzulli, J. & Smith, L. (1977) 'Two Approaches to Identification of Gift' in *Exceptional Children*, vol. 43, no. 8, pp.512-518.
- Renzulli, J., Smith, L., White, A., Callahan, C. & Hartman, R. (1976) Scales for Rating the Behavioral Characteristics of Superior Students. Connecticut: Creative Learning Press.
- Roberts, B. (1991) 'Music Teacher Education As Identity Construction' in *International Journal of Music Education*, vol. 18, pp.30-38.
- Roulston, K. (2006) 'Mapping the Possibilities of Qualitative Research in Music Education: A Primer' in *Music Education Research*, vol. 8, no. 2, pp.153-173.
- Ruane, J. M. (2005) *Essentials of Research Methods: A Guide to Social Science Research*. Oxford: Blackwell Publishing.
- Schwartz, L. L. (1975) *the Exceptional Child: A Primer*. Belmont, Wadsworth Publishing Company Inc.
- Scott, P. H. (2003) *Scotland Resurgent: Comments On the Cultural and Political Revival of Scotland*. Edinburgh, Saltire Society.
- Scottish Education Department (SED) (1976) Gifted Young Musicians and Dancers: Report of A Working Group Set Up to their General and Specialised Education (Edinburgh: HMSO)
- Scottish Educational Research Association (SERA) (2005) *Ethical Guidelines for Research*. Available at: [www.sera.ac.uk/docs/.../SERA%20Ethical%20GuidelinesWeb.PDF](http://www.sera.ac.uk/docs/.../SERA%20Ethical%20GuidelinesWeb.PDF)
- Seashore, C. E. (1919) *the Psychology of Musical Talent*. Boston: Silver, Burdett and Company.
- Scottish Executive Education Department (SEED) (2000) Creating Our Future...Minding Our Past: Scotland's National Cultural Strategy. Available at <http://www.scotland.gov.uk/nationalculturalstrategy/docs/cult-09.asp> (last accessed 20 June 2009).
- Scottish Government (2007) Pupils in Scotland 2007, National Statistics Publication For Scotland. Available at <http://www.scotland.gov.uk/resource/doc/233368/0063951.pdf> (last accessed 20 April 2009).
- Scottish Government (2009) Experiences and Outcomes: Music. Available at [http://www.ltscotland.org.uk/myexperiencesandoutcomes/expressivearts/music/ind\\_ex.asp](http://www.ltscotland.org.uk/myexperiencesandoutcomes/expressivearts/music/ind_ex.asp) (last accessed 27 July 2011).

- Scottish Office Education Department (SOED) (1993) *the Education of Able Pupils P6-S2: A Report By HM inspectors of Schools* (Edinburgh: SOED).
- Scottish Office Education Department (SOED) (1998) Helen Liddell Launches £320 Million Excellence Fund to Raise Standards in Schools. Available at <http://www.scotland.gov.uk/news/releases/1998/11/72b8a89f-20ea-479b-b186-59d6241f853d> (last accessed 10 July 2009).
- Schripp, L. & Subotnik, R. (2003) 'Directions for innovation in music education: integrating conceptions of musical giftedness into general educational practice and enhancing innovation on the part of musically gifted students' in L.V. Shavinina (ed.) (2003) *The International Handbook on Innovation*. Netherlands: Elsevier Science Ltd.
- Sheridan, M. & Byrne, C. (2002) *Ebb and flow of assessment in music*. *British Journal of Music Education*, vol. 19, no. 2, pp.135-143.
- Shuter-Dyson, R. & Gabriel, C. (1981) *The Psychology of Musical Ability*. London: Routledge.
- Silverman, M. (2008) 'A Performer's Creative Processes: Implications For Teaching and Learning Musical interpretation' in *Music Education Research*, vol. 10, no. 2, pp.249-268.
- Simonton, D. K. (2004) 'Adding Developmental Trajectories to the DMGT: Nonlinear and Non-Additive Genetic inheritance and Expertise Acquisition' in *High Ability Studies*, vol. 15, no. 2, pp.157-158.
- Sloboda, J. (1990) 'Musical Excellence - How Does It Develop?' in M. J. A. Howe (ed.) *Encouraging the Development of Exceptional Skills and Talents*. Oxford: BPS Blackwell.
- Sloboda, J. (1993) 'Musical Ability' in CIBA (eds.) *The Origins and Development of High Ability*. Chichester: John Wiley and Sons.
- Sloboda, J. (2002) *the Tingle Factor*. Available at <http://www.brllsi.org/proceed03/lecture200221.htm> (last accessed 17 February 2007).
- Sloman, A. (2009) In Defence of a Variety of Elitism. Available at: <http://www.cs.bham.ac.uk/~axs/misc/elitism.html> (last accessed 1st September 2011)
- Sosniak, L. (1985) 'Phases of learning' in B. Bloom (ed.) *Developing Talent in Young People*. New York: Ballantine Books.
- Spruce, G. (2005) 'Music assessment and the hegemony of musical heritage' in C. Philpott & C. Plummeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Sternberg, R. J. (1984) Toward A Triarchic theory of Human Intelligence *Behavioural and Brain Sciences*, vol. 7, no. 2, pp.269-315.
- Sternberg, R. J., & Davidson, J. E. (Eds.). (1986) *Conceptions of giftedness*. New York: Cambridge University Press.
- Sternberg, R. J. & Williams, W. M. (2002) *Educational Psychology*. Boston: Allyn and Bacon.
- Sternberg, R. (2003a) 'the Other Three Rs: Part Three, Resilience' in *Monitor On Psychology*, vol. 34, no. 5. Available at <http://www.apa.org/monitor/apr03/pc.aspx> (last accessed 4 April 2010).
- Sternberg, R. (2003b) the Other Three Rs: Part Two Reasoning in *Monitor On*

- Psychology*, vol. 34, no. 4. Available at <http://www.apa.org/monitor/apr03/pc.aspx> (last accessed 5 April 2010).
- Sternberg, R. (2003c) 'Responsibility, One of the Other Three Rs', in *Monitor On Psychology*, vol. 34, no. 3. Available at <http://www.apa.org/monitor/apr03/pc.aspx> (last accessed 7 April 2010).
- Stevens, P. E. (1996) 'Focus Groups: Collecting Aggregate-Level Data to Understand Community Health Phenomena' in *Public Health Nursing*, vol. 13, no. 3, pp.170-175.
- Stollery, P. & McPhee, A. D. (2002) 'Some Perspectives On Musical Gift and Musical Intelligence' in *British Journal of Music Education*, vol. 19, no. 1, pp.89-102.
- Storr, A. (1997) *Music and the mind*. London: Harper Collins.
- Subotnik, R. (2004) 'Transforming Elite Musicians into Professional Artists' in L. Shavinina & M. Ferrari (eds.) *Beyond Knowledge: Extra Cognitive Aspects of Developing High Ability*. New Jersey: Lawrence Erlbaum Associates Publishers.
- Subotnik, R. & Jarvin, L. (2005) 'Beyond Expertise: Conceptions of Giftedness As Great Performance' in R. Sternberg & J. Davidson (eds.) *Conceptions of Giftedness*. New York: Cambridge University Press.
- Subotnik, R. & Olsewski-Kubilius, P. (1997) 'Restructuring Special Programs to Reflect the Distinctions Between Children's and Adults' Experiences with Giftedness' in *Peabody Journal of Education*, Vol. 72, Nos. 3 & 4.
- Subotnik, R., Olsewski-Kubilius, P. & Arnold, K. (2003) 'Beyond Bloom: Revisiting Environmental Factors That Enhance Or Impede Talent Development' in J. H. Borland (ed.) *Rethinking Gifted Education*. New York: Teachers College Press.
- Swanwick, K. (1988) *Music, Mind and Education*. London: Routledge.
- Swetnam, D. & Swetnam, R. (2009): *Writing Your Dissertation*, Oxford: How to Books Ltd.
- Thomas, D. R. (2006) 'A General inductive Approach For Analyzing Qualitative Evaluation Data' in *American Journal of Evaluation*, vol. 27, no. 2, pp.237-245.
- Te Kete Ipurangi (No Date) Gagné's Differentiated Model of Giftedness and Talent (DMGT), (Wellington, Ministry of Education). Available at [http://www.tki.org.nz/r/gifted/reading/pdfs/giftedness\\_e.pdf](http://www.tki.org.nz/r/gifted/reading/pdfs/giftedness_e.pdf) (last accessed 10 June 2009).
- Van Audenhove, L. (2007) 'Expert interviews and interview Techniques For Policy Analysis' Paper Presented Available at *institute For European Studies* (Brussels, Belgium).
- Van Boxtel, H. W., & Mönks, F. J. (1992) 'General, social, and academic self-concepts of gifted adolescents' in *Journal of Youth and Adolescence*, Vol. 21, pp.169-186.
- Wallace, M. & Poulson, L. (eds.) (2003) *Learning to Read Critically in Educational Leadership and Management*. London: Sage.
- Walters, J. W. & Gardner, H. (1986a) Crystallizing experiences: Discovering an intellectual gift. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (pp. 306-331). Cambridge: Cambridge University Press.
- Western Australia Government Schools (2003) School of Instrumental Music Musical Aptitude Indicator. Available at: <http://www.sim.iinet.net.au/mai.html> (last accessed on 12 June 2011)
- Wilson, V. (1997) 'Focus Groups: A Useful Qualitative Method For Educational

- Research?’ in *British Educational Research Journal*, vol. 23, no. 2, pp.209-215.
- Winner, E. (1997) ‘Exceptionally High Intelligence and Schooling’ in *American Psychologist*, vol. 52, no. 10, pp.1070-1081.
- Winstanley, C. (2004a) *too Clever By Half: A Fair Deal For Gifted Children*. Stoke On Trent: Trentham Books).
- Winstanley, C. (2004b) What It Is Fair to Do For Gifted Children, *Roehampton Research Conference in Education* (Roehampton University, London).
- Winstanley, C. (2006) ‘Inequity in Equity: Tackling the Excellence-Equality Conundrum’ in C. M. M. Smith (ed.) *Including the Gifted and Talented: Making Inclusion Work For More Gifted and Able Learners*. London: Routledge.
- Winstanley, C. (2007) Ingredients of Challenge, *SNAP Annual Conference* (Keynote Presentation, University of Glasgow, Glasgow, June 2007).
- Woolfolk, A., Hughes, M. & Walkup, V. (eds.) (2007) *Psychology in Education*. Harrow: Pearson Education Limited.

## Bibliography

- Abbott, A. (2002) 'Music, Maestro, Please!' in *Nature*, vol. 416, pp.12-15.
- Anderson, G. & Arsenault, N. (1998) *Fundamentals of Educational Research*, 2<sup>nd</sup> Ed. London: Routledge Falmer.
- Applebaum, E., Egel, A. L., Keogel, R. L. & Imhoff, B. (1979) 'Measuring Musical Abilities of Autistic Children' in *Journal of Autism and Developmental Disorders*, vol. 9, no. 3, pp.279-285.
- Areglado, R. J., Bradley, R. C. & Lane, P. S. (1996) *Learning for Life: Creating Classrooms for Self-Directed Learning* California: Corwin Press Inc.
- Armstrong, T. (1994) *Multiple intelligences in The Classroom*. Virginia: Association for Supervision and Curriculum Development.
- Aróstegui, J. L. (2003) 'On The Nature of Knowledge: What We Want and What We Get With Measurement in Music Education' in *International Journal of Music Education*, vol. 40, pp.100-113.
- Baer, J. & Kaufman, J. C. (2004) 'Considering The DMGT: Something Old, Something New' in *High Ability Studies*, vol. 15, no. 2, pp.149-150.
- Baker, J. & Horton, S. (2010) 'A review of primary and secondary influences on sport expertise' in *High Ability Studies*, vol. 15, no. 2, pp.221-228.
- Bakker, A.B. (2005) 'Flow among music teachers and their students: The crossover of peak experiences' in *Journal of Vocational Behavior*, vol. 66, pp.26-44.
- Ballantyne, J. (2007) 'Integration, Contextualization and Continuity: Three Themes for The Development of Effective Music Teacher Education Programmes' in *International Journal of Music Education*, vol. 25, no. 2, pp.160-166.
- Bamberger, J. (1991) *The Mind Behind The Musical Ear: How Children Develop Musical Intelligence*. London: Harvard University Press.
- Bandura, A. (1977) 'Self-Efficacy: Toward A Unifying Theory of Behavioural Change' in *Psychological Review*, vol. 84, no. 2, pp.191-214.
- Bandura, A. (1982) 'The Psychology of Chance Encounters and Life Paths' in *American Psychologist*, vol. 37, no. 7, pp.747-758.
- Bandura, A. (1994) 'Self-Efficacy' in V. S. Ramachaudran (ed.) *Encyclopedia of Human Behavior*, pp.71-81. New York: Academic Press.
- Bandura, A. (2006) 'Autobiography: Albert Bandura' in M. G. Lindzey & W. M. Runyan (eds.) *Autobiography: A History of Psychology in Autobiography (vol. IX)*, pp.42-75. Washington, D.C.: American Psychological Association.
- Bantock, G. H. (1965) *Education and Values*. London: Faber and Faber.
- Barab, S. A. & Plucker, J. A. (2002) 'Smart People Or Smart Contexts? Cognition, Ability, and Talent Development in An Age of Situated Approaches To Knowing and Learning' in *Educational Psychologist*, vol. 37, no. 3, pp.165-181.
- Barrow, R. & Woods, R. (2006) *An Introduction to Philosophy of Education*, 4<sup>th</sup> Edt. Oxon: Routledge.
- Bauer, W. I. (2007) 'Research On Professional Development for Experienced Music Teachers' in *Journal of Music Teacher Education*, vol.12, pp.12-20.
- BBC (2005) Experts Tune in On Tone Deafness, BBC News. Available at <http://news.bbc.co.uk/go/pr/fe/-/1/hi/health/4181872.stm> (last accessed 16 November 2006).
- Bell, J. (2004) *Doing Your Research Project: A Guide for First-Time Researchers in Education and Social Science*. Maidenhead: Open University Press.

- Bentley, A. (1976) *Musical Ability in Children and Its Measurement*. London: Harrap.
- Betts, G. T. & Neihart, M. (2004) 'Profiles of The Gifted and Talented' in R. J. Sternberg (ed.) *Definitions and Conceptions of Giftedness* California: Corwin Press.
- Blackwell, M., Hope-Brown, M., Dowsett, R. & Kahn, E. (1982) *Musical Giftedness in The Primary School: Guidelines for Teachers*. Herts: Admin (Watford) Ltd.
- Borland, J. H. (1997) 'The Construct of Giftedness' in *Peabody Journal of Education*, vol. 72, Nos. 3 & 4, pp.6-19.
- Borland, J. H. (1999) 'The Limits of Consilience: A Reaction To Francoys Gagné's "My Convictions About The Nature of Abilities, Gifts, and Talents"' in *Journal for The Education of The Gifted*, vol. 22, no. 2, pp.137-148.
- Borland, J.H. (ed.) (2003) *Rethinking Gifted Education*. New York: Teachers College Press.
- Bowles, C. (2003) 'The Self-Expressed Professional Development Needs. of Music Educators' in *Update: Applications of Research in Music Education*, Spring/Summer, pp.48-62.
- Boyce-Tillman, J. (2004) 'Towards and Ecology of Music Education' in *Philosophy of Music Education Review*, vol. 12, no. 2.
- Boyle, J. D. (1992) 'Evaluation of Music Ability' in Colwell, R. (ed.) *Handbook of Research On Music Teaching and Learning: A Project of The Music Educators National Conference*. New York: Schirmer Books.
- Briggs, A.R.J. & Coleman, M. (eds.) (2007) *Research Methods in Educational Leadership and Management*. London: Sage.
- British Educational Research Association (BERA) (2001) Mapping Music Education Research in The UK. Available at [www.bera.ac.uk/publications/pdfs/musicreview.pdf](http://www.bera.ac.uk/publications/pdfs/musicreview.pdf) (last accessed 12 September 2008).
- British Educational Research Association (BERA) (2004) Revised Guidelines for Educational Research. Available at: <http://www.bera.ac.uk/publications/guides.php>
- Borland, J.H. (2005) 'Gifted Education Without Gifted Children: The case for no conception of giftedness'. In R. J. Sternberg and J. Davidson (eds.) (2005) *Conceptions of Giftedness*, 2<sup>nd</sup> Edt. Cambridge: Cambridge University Press.
- Borthwick, S. & Davidson, J.D. (2009) 'Developing a child's identity as a musician a family 'script' perspective' in R. MacDonald, D. Hargreaves and D. Miell (eds.) *Musical Identities*, pp.60-79. Oxford: Oxford University Press.
- Brown, S. (ed.) (1975) *Philosophers Discuss Education*. London: The Macmillan Press Ltd.
- Brown, R. & McCartney, S. (2004) 'The Development of Capability: The Content of Potential and The Potential of Content' in *Education and Training*, vol. 46, no. 1, pp.7-10.
- Butler, A., Lind, V.R & Constance, L. (2007) 'Equity and access in music education: conceptualizing culture as barriers to and support for music learning' in *Music Education Research*, vol. 9, no. 2, pp. 241-253.
- Cairns, L. (1996) 'Capability: Going Beyond Competence' in *Capability*, vol. 2, no. 2, pp.79-80.
- Callahan, C.M. (1997) 'The Construct of Talent' in *Peabody Journal of Education*, vol. 72, Nos. 3 & 4, pp.21-34.

- Callow, S. & Gunning, C. Why Does Music Make Us Tingle? Available Online  
Available at:  
[http://www.open2.net/historyandthearts/arts/emotion\\_music\\_tingle.html](http://www.open2.net/historyandthearts/arts/emotion_music_tingle.html)  
(last accessed 17 February 2007).
- Chin, C. S. & Harrington, D. M. (2007) 'Supporting The Development of Musical Talent' in *Gifted Child Today*, vol. 30, no. 1, pp.40-48.
- Choksy, L. (1999) *The Kodály Method I: Comprehensive Music Education*. New Jersey: Prentice-Hall.
- CIBA (1993) *The Origins and Development of High Ability*. Chichester: John Wiley and Sons.
- Chew, C. (2008) 'Why I took a stand against WASL and why the state should abandon it' in *The Seattle Times*, Thursday 8<sup>th</sup> May 2008. Available at:  
[http://seattletimes.nwsourc.com/html/opinion/2004398885\\_chew08.html](http://seattletimes.nwsourc.com/html/opinion/2004398885_chew08.html) (last accessed on 12 June 2011).
- Cigman, R. (2006) 'The Gifted Child: A Conceptual Enquiry' in *Oxford Review of Education*, vol. 32, no. 2, pp.197-112.
- Claxton, G. (2007) 'Expanding Young People's Capacity To Learn' in *British Journal of Educational Studies*, vol. 55 no. 2, pp.115-134.
- Claxton, G. & Meadows, S. (2008) *Brightening Up: How Children Learn To Be Gifted*, University of Bristol, Graduate School of Education).
- Council for Music Education Training (CMET) (1982) *Musical Giftedness in The Primary School*. Herts, Admin (Watford) Ltd).
- Cohen, L. & Manion, L. (1980) *Research Methods in Education*. London: Croom Helm.
- Cohen, L. & Manion, L. (1994) *Research Methods in Education*. London: Routledge.
- Cohen, L., Manion, L. & Morrison, K. (2011) *Research Methods in Education 7<sup>th</sup> ed.* London: Routledge.
- Colwell, R. (ed.) (1992) *Handbook of Research On Music Teaching and Learning: A Project of The Music Educators National Conference*. New York: Schirmer Books.
- Cooper, D. E. (1975) 'Quality and Equality in Education' in S. Brown (ed.) *Philosophers Discuss Education*. London: The Macmillan Press Ltd.
- Cope, P. (1998) 'Knowledge Meaning and Ability in Musical Instrument Playing' in *British Journal of Music Education*, vol. 15, no. 3, pp.301-308.
- Cope, P. & Smith, H. (1997) 'Cultural Context in Musical Instrument Learning' in *British Journal of Music Educational*, vol. 14, no. 3, pp.283-289.
- Cornell, D. G. (1989) 'Child Adjustment and Parent Use of The Term 'Gifted'' in *Gifted Child Quarterly*, vol. 33, no. 2, pp.59-64.
- Craig, O. (2006) A Musical Genius Like No Other. Available at  
<http://www.smh.com.au/news/arts/a-musical-genius-like-no-other/2006/09/25/1159036468944.html> (last access 30 December 2006).
- Creech, A. (2010) 'The role of music leaders and community musicians' in S. Hallam & A. Creech (eds.) (2010) *Music Education in the 21<sup>st</sup> Century in the United Kingdom: Achievements, analysis and aspirations*. London: Institute of Education, University of London.
- Creech, A. & Hallam, S. (2003) 'Parent - Teacher - Pupil interactions in instrumental Music Tuition: A Literature Review' in *British Journal of Music Education*, vol. 20, no. 1, pp.29-44.

- Cross, I. (2001) Music, Cognition, Culture and Evolution, *Annals of The New York Academy of Sciences*, 930, 16.
- Cross, I. & Morley, I. (2002) 'Music and evolution: the nature of the evidence', In C. Stevens, D. Burnham, G McPherson, E. Schubert and J. Renwick *Proceedings of the 7th International Conference on Music Perception and Cognition*, Adelaide: Causal Productions, 2002, pp. 416-419.
- Csikszentmihalyi, M. (1996) *Creativity: Flow and the Psychology of Discovery and Invention*. New York: Harper Perennial.
- Cultural Commission (2005) Our Next Major Enterprise...: Final Report of The Cultural Commission. Available at <http://www.culturalcommission.org/cultural/files/final%20final%20report%20june%202005.pdf> (last accessed 27 July 2009).
- Custodero, L. A. & Johnson-Green, E. A. (2003) 'Passing The Cultural Torch: Musical Experience and Musical Parenting of Infants' in *Journal of Research in Music Education*, vol. 51, no. 2, pp.102-115.
- Dai, D.Y. (2009) Essential Tensions Surrounding The Concept of Giftedness, in L. Shavinina (ed.) *International Handbook On Giftedness*. Dordrecht: Springer.
- Dai, D. Y., Moon, S. M. & Feldhusen, J. F. (1998) 'Achievement Motivation and Gifted Students: A Social Cognitive Perspective' in *Educational Psychologist*, vol. 33, no. 2, pp.45-62.
- Dai, D. Y. & Renzulli, J. S. (2008) 'Snowflakes, Living Systems, and The Mystery of Giftedness' in *Gifted Child Quarterly*, vol. 52, no. 2, pp.114-130.
- Dai, D. Y. & Schader, R. M. (2002) 'Decisions Regarding Music Training: Parental Beliefs and Values' in *Gifted Child Quarterly*, vol. 46.
- Dalgarno, G. (1997) 'Creating An Expressive Performance Without Being Able To Play A Musical Instrument' in *British Journal of Music Education*, vol. 14, no. 2, pp.163-171.
- Davidson, J. W., Howe, M. J. A. & Sloboda, J. A. (2000) 'Environmental Factors in The Development of Musical Performance Skill Over The Life Span' in D. J. Hargreaves & A. C. North (eds.) *The Social Psychology of Music*. Oxford: Oxford University Press.
- Davidson, J. W. & Pitts, S. E. (2001) 'People Have Talents': A Case Study of Musical Behaviour in An Adoptive Family' in *British Journal of Music Education*, vol. 18, no. 2, pp.161-171.
- Delisle, J. R. & Renzulli, J. S. (1982) 'The Revolving Door Identification and Programming Model: Correlates of Creative Production' in *Gifted Child Quarterly*, vol. 26, no. 2, pp.89-94.
- Denton, C. & Postlethwaite, K. (1985) *Able Children: Identifying Them in The Classroom* (Berkshire, Nfer-Nelson Publishing Company Ltd).
- Denzin, N. K. (1994) 'The Art and Politics of interpretation' in N. Denzin & Y. S. Lincoln (eds.) *Handbook of Qualitative Research*. London: Sage.
- Denzin, N. & Lincoln, Y.S. (eds.) (1994) *Handbook of Qualitative Research*. London: Sage.
- Detterman, D. K. & Ruthsatz, J. (1999) 'Toward A More Comprehensive Theory of Exceptional Abilities', *Journal for The Education of The Gifted*, vol. 22, no. 2, pp.148-159.

- Dunn, R. (1993) 'Teaching Gifted Adolescents Through Their Learning Style Strengths', in R. M. Milgram, Dunn, R. & Price, G.E (ed.) *Teaching and Counselling Gifted and Talented Adolescents: An International Learning Style Perspective*. London: Praeger.
- Dweck, C. S. (2000) *Self-Theories and Goals: Their Role in Motivation, Personality and Development* East Sussex: Psychology Press.
- Dweck, C. S. (2006) *Mindset: The New Psychology of Success - How We Can Learn To Fulfil Our Potential*. New York: Ballantyne Books.
- Dwyer, S. C. & Buckle, J. L. (2009) 'The Space Between: On Being An insider-Outsider in Qualitative Research' in *International Journal of Qualitative Methods*. Available at <https://ejournals.library.ualberta.ca/index.php/IJQM/article/viewFile/2981/5198> (last accessed 10 January 2009).
- Eastman, C. & Marzillier, J. (1984) 'Theoretical and Methodological Difficulties in Bandura's Self-Efficacy Theory' in *Cognitive Therapy and Research*, vol. 8, no. 3, pp.213-228.
- Elliot, D. J. (2005) 'Musical Understanding, Musical Works and Emotional Expression: Implications for Education' in *Educational Philosophy and Theory*, vol. 37, no. 1, pp.93-103.
- Endepohls-Ulpe, M. & Ruf, H. (2005) 'Primary School Teachers' Criteria for The Identification of Gifted Pupils' in *High Ability Studies*, vol. 16, no. 2, pp.219-228.
- Esquivel, G. B. (1995) 'Teacher Behaviours That Foster Creativity' in *Educational Psychology Review*, vol. 7, no. 2, pp.185-202.
- Feldhusen, J. F. (1998) 'Programs for The Gifted Few Or Talent Development for The Many?' in *Phi Delta Kappan*, vol. 79, no. 10, pp.735-738.
- Feldhusen, J. F. (2004) 'Transforming Gifts into Talent: The DMGT Theoretical Model – A Response' in *High Ability Studies*, vol. 15, no. 2, pp.151-152.
- Feldheusen, J. F. (2005) 'Giftedness, Talent, Expertise and Creative Achievement'. In R. J. Sternberg and J. Davidson (eds.) (2005) *Conceptions of Giftedness*, 2<sup>nd</sup> Edt. Cambridge: Cambridge University Press.
- Feldheusen, J. F., Asher, J. W. & Hoover, S. M. (2004) 'Problems in The Identification of Giftedness, Talent, Or Ability', in J. S. Renzulli (ed.) *Identification of Students for Gifted and Talented Programs*. California: Corwin Press.
- Feldman, D. H. (1999) 'A Developmental, Evolutionary Perspective On Gifts and Talents' in *Journal for The Education of The Gifted*, vol. 22, no. 2, pp.159-167.
- Feldman, D. H. (2004) 'Child Prodigies: A Distinctive form of Giftedness' in R. J. Sternberg (ed.) *Definitions and Conceptions of Giftedness*. California: Corwin Press.
- Flick, U. (1998) *An introduction To Qualitative Research*. London: Sage Publications.
- Flick, U., Von Kardorff, E. & Steinke, I. (eds.) (2004) *A Companion To Qualitative Research*. London: Sage Publications.
- Folkestad, G. (2006) Formal and Informal learning situations or practices vs formal and informal ways of learning in *British Journal of Music Education*, vol. 23, no. 2, pp.135-145.
- Folkestad, G. (2009) 'National Identity in Music' in R. MacDonald, D. Hargreaves and D. Miell (eds.) *Musical Identities*, pp.60-79. Oxford: Oxford University Press.
- Freeman, C. (1999) 'The Crystallising Experience: A Study in Musical Precocity' in *Gifted Child Quarterly*, vol. 43, no. 2, pp.75-84.

- Freeman, J. (2001) *Gifted Children Grown Up*. London: David Fulton Publishers Ltd.
- Freeman, J. (2001b) 'Giftedness, Responsibility and Schools' in *Gifted Education International*, vol. 15, no. 2, pp.141-150.
- Freeman, J. (2005) 'Permission To Be Gifted: How Conceptions Of Giftedness Can Change Lives'. In R. J. Sternberg and J. Davidson (eds.) (2005) *Conceptions of Giftedness*, 2<sup>nd</sup> Edt. Cambridge: Cambridge University Press.
- Gagné, F. (1995a) 'From Giftedness To Talent: A Developmental Model and Its Impact On The Language of The Field' in *Roeper Review*, vol. 18, no. 2, pp.103-111.
- Gagné, F. (1995b) 'Hidden Meanings of The Talent Development' in *Educational forum*, vol. 59, no. 4, pp.350-361.
- Gagné, F. (1999b) 'Is There Any Light Available at The End of The Tunnel?' in *Journal for The Education of The Gifted*, vol. 22, no. 2, pp.109-152.
- Gagné, F. (1999) 'My Convictions About The Nature of Abilities, Giftedness and Talents' in *Journal for The Education of The Gifted*, vol. 22, no. 2, pp.109-136.
- Gagné, F. (2000a) 'A Differentiated Model of Giftedness and Talent: Year 2000 Update', *Opinion Papers*, 5. Available at [http://eric.ed.gov/ericdocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/16/bf/70.pdf](http://eric.ed.gov/ericdocs/data/ericdocs2sql/content_storage_01/0000019b/80/16/bf/70.pdf) (last accessed 26 September 2007)
- Gagné, F. (2000b) 'How Many Persons Are Gifted Or Talented?' in *Understanding Our Gifted*, Winter, pp.10-14.
- Gagné, F. (2004) 'Transforming Gifts into Talents: The DMGT As A Developmental Theory' in *High Ability Studies*, vol. 15, no. 2, pp.119-128.
- Gagné, F. (2007) 'Ten Commandments for Academic Talent Development' in *Gifted Child Quarterly*, vol. 51, no. 93, pp.93-118.
- Gagné, F. (2008) Building Gifts into Talents: Brief Overview of The DMGT 2.0. Available at [http://nswagtc.org.au/images/stories/infocentre/dmgt\\_2.0\\_en\\_overview.pdf](http://nswagtc.org.au/images/stories/infocentre/dmgt_2.0_en_overview.pdf) (last accessed 20 November 2009).
- Gagné, F. & Blanchard, D. (2004) 'Beliefs of Music Educators and Students Concerning The Major Determinants of Musical Talent' in *Musikpsychologie*, vol. 17, pp.32-49.
- Gall, M. D., Gall, J. P. & Borg, W. R. (2007) *Educational Research an introduction*. Boston: Pearson International.
- Gardner, H. (1983a) 'Art and The Mind' in *Art Education*, vol. 36, no. 2, pp.47-49.
- Gardner, H. (1983b) *Frames of Mind: The Theory of Multiple intelligences*. London: Heinemann.
- Gardner, H. (1996) *The Development and Education of The Mind: The Selected Works of Howard Gardner*. London: Routledge.
- Gembris, H. & Davidson, J. (2002) 'Environmental influences' in R. Parncutt & G. McPherson (eds.) *The Science and Psychology of Music Performance*. New York: Oxford.
- Gladwell, M. (2008) *Outliers: The Story of Success*. London: Penguin Books Ltd.
- Golafshani, N. (2003) 'Understanding Reliability and Validity in Qualitative Research' in *The Qualitative Report*, vol. 8, no. 4, pp.597-606.
- Goleman, D. (1996) *Emotional intelligence: Why It Can Matter More Than IQ*. London: Bloomsbury.

- Gooch, S. (1972) *Total Man: Towards An Evolutionary Theory of Personality* London: Penguin Press.
- Gordon, N. (2005) 'Unexpected Development of Artistic Talents' in *Postgraduate Medical Journal*, vol. 81, pp.753-755.
- Gottfried, A. E. & Gottfried, A. W. (2004) 'Toward The Development of A Conceptualization of Gifted Motivation' in *Gifted Child Quarterly*, vol. 48, no. 2, pp.121-132.
- Green, L. (2002) *How Popular Musicians Learn: A Way Ahead for Music Education*. Hants: Ashgate Publishing.
- Green, L. (2005a) *Meaning, Autonomy and Authenticity in The Music Classroom*. London: Institute of Education.
- Green, L. (2005b) 'Music in Society and Education' in C. Philpott & C. Plumeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Green, L. (2006) 'Popular Music Education in and for Itself, and for 'Other' Music: Current Research in The Classroom' in *International Journal of Music Education*, vol. 24, no. 2, pp.101-118.
- Green, L. (2008a) *Music, Informal Learning and the School: A New Classroom Pedagogy*. Aldershot: Ashgate Publishing Company.
- Green, L. (2008b) *Music on Deaf Ears: Musical Meaning, Ideology and Education* (2nd ed.). Bury St. Edmunds: Abramis Publishing.
- Green, L. (2010) *How Popular Musicians Learn: A Way Ahead For Music Education*. London and New York: Ashgate Press.
- Grigorenko, E. (2007) Schooling Today: Teaching Competence, Creativity, and Compassion, *World Council for The Gifted* (Warwick, Conference Keynote, July 2007).
- Grobman, J. (2006) 'Underachievement in Exceptionally Gifted Adolescents and Young Adults: A Psychiatrist's View' in *The Journal of Secondary Gifted Education*, vol. 17, no. 4, pp.199-210.
- Grogan, M. & Simmons, J. M. (2007) 'Taking A Critical Stance in Research' in A. R. J. Briggs & M. Coleman (eds.) *Research Methods in Educational Leadership and Management*. London: Sage.
- Guenther, Z. C. (2004) 'Transforming Gifts into Talents: The DMGT As A Developmental Theory - A Response' in *High Ability Studies*, vol. 15, no. 2, pp.165-166.
- Haack, P. (1992) The Acquisition of Music Listening Skills, in Colwell, R. (ed.) *Handbook of Research On Music Teaching and Learning: A Project of The Music Educators National Conference*. New York: Schirmer Books.
- Hallam, S. (2002) 'Musical Motivation: Towards A Model Synthesising The Research' in *Music Education Research*, vol. 4, no. 2, pp.225-245.
- Hallam, S. (2005) 'Learning in Music' in C. Philpott & C. Plumeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Hallam, S. (2010b) '21<sup>st</sup> century conceptions of musical ability' in *Psychology of Music*, vol. 38, pp. 308-330.
- Hallam, S. & Creech, A. (eds.) (2010) *Music Education in the 21<sup>st</sup> Century in the United Kingdom: Achievements, analysis and aspirations*. London: Institute of Education, University of London.
- Hany, E. A. (1999) 'Do Personal Convictions Promote Scientific Progress? Comment On Gagné's "My Convictions About The Nature of Abilities, Gifts, and Talents"' in *Journal for The Education of The Gifted*, vol. 22, no. 2, pp.168-180.

- Hargreaves, D. J. & Marshall, N. A. (2003) 'Developing Identities in Music Education' in *Music Education Research*, vol. 5, no. 3, pp.263-274.
- Hargreaves, D. J., Miell, D. & MacDonald, R. A. R. (2002) 'What Are Musical Identities, and Why Are They Important?' in R. A. R. MacDonald, D. J. Hargreaves & D. Miell (eds.) *Musical Identities*. Oxford: Oxford University Press.
- Hargreaves, D.J. & North, A.C. (eds.) (2000) *The Social Psychology of Music*. Oxford: Oxford University Press.
- Hargreaves, D. J. & North, A. C. (2002) *Musical Development and Learning: Frontiers of International Education*. London: Continuum.
- Hargreaves, D. J., Welch, G., Purves, R. & Marshall, N. (2003) 'The Identities of Music Teachers' in R. Kopiez, A. Lehmann, I. Wolther & C. Wolf (eds.) *5th Triennial ESCOM Conference*. Paper presented at Hanover University, Germany.
- Hargreaves, D. J. & Zimmerman, M. P. (1992) 'Developmental Theories of Music Learning' in Colwell, R. (ed.) *Handbook of Research On Music Teaching and Learning: A Project of The Music Educators National Conference* (New York, Schirmer Books).
- Haroutounian, J. (1995) *The Assessment of Potential Talent in Musical Behavior/Performance: Criteria and Procedures to consider in the identification of musically gifted and talented students*. University of Virginia: PhD dissertation.
- Haroutounian, J. (2000) 'Perspectives of Musical Talent: A Study of Identification Criteria and Procedures' in *High Ability Studies*, vol. 11, no. 2, pp.137-160.
- Haroutounian, J. (2002) *Kindling The Spark: Recognizing and Developing Musical Talent*. Oxford: Oxford University Press.
- Hase, S. (2000) 'Capability and Coping in The New Millennium: A Critical Challenge for Education', paper delivered at *Universities, Colleges and Sustainable Health Conference* (Preston, England).
- Heaton, J. (1998) Secondary analysis of qualitative data. Available at <http://sru.soc.surrey.ac.uk/SRU22.html> (last accessed 18th January 2011)
- Heaton, P., Hermelin, B. & Pring, L. (1999) 'Can Children With Autistic Spectrum Disorders Perceive Affect in Music? An Experimental Investigation' in *Psychological Medicine*, vol. 29, pp.1405-1410.
- Heaton, P., Williams, K., Cummins, O. & Happe, F. G. E. (2006) 'Beyond Perception in Musical Representation and On-Line Processing in Autism' in *Journal of Autism and Developmental Disorders*, vol. 36, no. 9, pp.2-7.
- Her Majesty's Stationery Office (HMSO) (2004) Education (Additional Support for Learning) (Scotland) Act (2004). Available at [http://www.opsi.gov.uk/legislation/scotland/acts2004/asp\\_20040004\\_en\\_1](http://www.opsi.gov.uk/legislation/scotland/acts2004/asp_20040004_en_1) (last accessed 26 June 2008).
- Hermelin, B. (2001) *Bright Splinters of The Mind*. London: Jessica Kingsley Publishers.
- Hermelin, B., O'Connor, N. & Lee, S. (1987) 'Musical inventiveness of Five Idiot-Savants' in *Psychological Medicine*, vol. 17, pp.79-90.
- Hershey, M. & Oliver, E. (1988) 'The Effects of The Label Gifted On Students Identified for Special Programs' in *Roeper Review*, vol. 11, no. 1, pp.33-34.
- Hill, M. & Tidsall, K. (1997) *Children and Society*. Essex: Pearson Education Limited.

- Holden, H. & Button, S. (2006) 'The Teaching of Music in The Primary School By The Non-Specialist' in *British Journal of Music Education*, vol. 23, no. 1, pp.23-37.
- Hopf, C. (2004) 'Qualitative Interviews: An Overview' in U. Flick, E. Von Kardorff & I. Steinke (eds.) *A Companion To Qualitative Research*. London: Sage.
- Hopkinson, D. (1978) *The Education of Gifted Children*. Bournemouth: The Woburn Press.
- Howe, M.J.A. (ed.) (1990) *Encouraging The Development of Exceptional Skills and Talents*. Oxford: BPS Blackwell.
- Howe, M. J. A. (1990) *Sense and Nonsense About Hothouse Children*. Leicester: BPS Books.
- Howe, M. J. A. (1998) *Principles of Abilities and Human Learning*. Sussex: Psychology Press.
- Howe, M. J. A. (1999) *The Psychology of High Abilities* London: Macmillan Press.
- Howe, M. J. A. (2000) *I.Q. in Question: The Truth About intelligence*. London: Sage Publications.
- Howe, M. J. A., Davidson, J. W. & Sloboda, J. (1998) 'Innate Talents: Reality Or Myth?' in *Behavioural and Brain Sciences*, vol. 21, pp.399-442.
- Howe, M. J. A. & Sloboda, J. (1991a) 'Young Musicians' Accounts of Significant influences in Their Early Lives. 1. The Family and The Musical Background' in *British Journal of Music Education*, vol. 8, pp.39-51.
- Howe, M. J. A. & Sloboda, J. (1991b) Young Musicians' Accounts of Significant influences in Their Early Lives. 2. Teachers, Practising and Performing, *British Journal of Music Education*, vol. 8, pp.53-62.
- IPF (2005) Report On The Costs and Funding of Scotland's Nine Centres of Excellence. Available at <http://www.scotland.gov.uk/topics/education/schools/excellence/costsandfunding> (last accessed On 20 June 2009).
- Jenkins-Friedman, R. & Murphy, D. L. (1988) 'The Mary Poppins Effect: Relationships Between Gifted Students' Self Concept and Adjustment' in *Roeper Review*, vol. 11, no. 1.
- Johnsen, S. K. (1999) 'Renzulli's Model: Needed Research' in *Journal for The Education of The Gifted*, vol. 23, no. 1, pp.102-116.
- Jonathan, R. (1988) 'The Notion of Giftedness - Or How Long Is A Piece of String?' in *British Journal of Educational Studies*, vol. 26, no. 2, pp.111-125.
- Juslin, P.N & Sloboda, J.A. (eds.) (2001) *Music and Emotion: Theory and Research* Oxford: Oxford University Press.
- Juslin, P. N. & Lukka, P. (2004) 'Expression, Perception, and induction of Musical Emotions: A Review and A Questionnaire Study of Everyday Listening' in *Journal of New Music Research*, vol. 33, no. 33, pp.217-238.
- Kamin, S., Richards, H. & Collins, D. (2007) 'Influences On The Talent Development Process of Non-Classical Musicians: Psychological, Social and Environmental influences' in *Music Education Research*, vol. 9, no. 3, pp.49-67.
- Kemp, A. E. & Mills, J. (2002) *Musical Potential*. Oxford: Oxford University Press.
- Kersting, K. (2003) 'What music's gatekeepers seek in Musicians' in *Monitor in Psychology*, vol.34, no.9, p.17. Available at: <http://www.apa.org/monitor/oct03/gatekeepers.aspx>

- Kidd, P. S. & Parshall, M. B. (2000) 'Getting The Focus and The Group: Enhancing Analytical Rigor in Focus Group Research' in *Qualitative Health Research*, vol. 10, no. 3, pp.293-307.
- Kirk, S. A., Gallagher, J. J., Anastasiow, N. J. & Coleman, M. R. (2006) *Educating Exceptional Children*. Boston: Houghton Mifflin Company.
- Kitzinger, J. (1995) 'Qualitative Research: introducing Focus Groups' in *British Medical Journal*, vol. 311, pp.299-302.
- Kline, P. (2000) *A Psychometrics Primer*. London: Free Association Books.
- Koopman, C. (2007) 'Community Music As Music Education: On The Educational Potential of Community Music' in *International Journal of Music Education*, vol. 25, no. 2, pp.151-162.
- Lacaille, N., Koestner, R. & Gaudreau, P. (2007) 'On The Value of intrinsic Rather Than Traditional Achievement Goals for Performing Artists: A Short-Term Prospective Study' in *International Journal of Music Education*, vol. 25, no. 3, pp.235-242.
- Lamont, A. (2009) 'Musical identities and the school environment' in R. MacDonald, D. Hargreaves and D. Miell (eds.) *Musical Identities*, pp.41-60. Oxford: Oxford University Press.
- Le Gallais, T. (2003) 'From Native To Stranger...and Back Again Reflections of An inside Out Researcher!' Paper presented at *British Educational Research Association* conference (Heriot-Watt University, Edinburgh). Available at <http://www.leeds.ac.uk/educol/documents/00003363.htm> (last accessed 15 April 2008).
- Legette, R. M. (1998) 'Causal Beliefs of Public School Students About Success and Failure in Music' in *Journal of Research in Music Education*, vol. 46, no. 1, pp.102-111.
- Lindzey, M. G. & Runyan, W. M. (eds.) (2006) *Autobiography: A History of Psychology in Autobiography (vol. IX)*. Washington, D.C.: American Psychological Association.
- Livingstone, T. (2005) *Child of Our Time*. London: Bantam Press.
- Lubinski, D., Webb, R., Morelock, M. & Benbow, C. (2001) 'Top 1 in 10,000: A 10-Year Follow-Up of The Profoundly Gifted' in *Journal of Applied Psychology*, vol. 86, pp.718-728.
- Ma, Y. Y. (1992) 'The Courage To Go Forth: Yo Yo Ma in Conversation', *The Economist (US)*, vol. 322, no.7746.
- MacDonald, R. A. R., Hargreaves, D. J. & Miell, D. (eds.) (2002) *Musical Identities* Oxford: Oxford University Press.
- MacKinnon, D. W. (1964) 'The Creativity of Architects', in C. W. Taylor (ed.) *Widening Horizons in Creativity*. New York: Wiley.
- MacLean, A. (2003) *The Motivated School*. London: Paul Chapman Publishing.
- MacNamara, A., Holmes, P. & Collins, D. (2006) 'The pathway to excellence: the role of psychological characteristics in negotiating the challenges of musical development' in *British Journal of Educational Studies*, vol. 23, no. 3, pp.285-302.
- MacNamara, Á., Holmes, P. & Collins, D. (2008) 'Negotiating transitions in musical development: the role of psychological characteristics of developing excellence' in *Psychology of Music* vol. 36, no.3, pp.335-352.

- Malloch, M., Cairns, L. & Hase, S. (1998) 'Learning in The Workplace: Implications of The Capability Learning Model' Available at *American Educational Research Association, Annual Meeting* (San Diego). Available at <http://eric.ed.gov/PDFS/ED418330.pdf> (last accessed 5 May 2010).
- Martin, P. J. (1999) *Sounds of Society: Themes in The Sociology of Music*. Manchester: Manchester University Press.
- McCoach, D. B., Kehle, T. J., Bray, M. A. & Siegle, D. (2001) 'Best Practices in The Identification of Gifted Students With Learning Disabilities' in *Psychology in The Schools*, vol. 38, no. 5, pp.403-411.
- McPhee, A. D., Stollery, P. & McMillan, R. (2005) 'The Wow Factor? A Comparative Study of The Development of Student Music Teachers' Talents in Scotland and Australia' in *Educational Philosophy and Theory*, vol. 37, no. 1, pp.105-117.
- Meno, L. I. (2006) 'E-Mail interviewing in Qualitative Research: A Methodological Discussion' in *Journal of The American Society for information, Science and Technology*, vol. 57, no. 10, pp.1283-1294.
- Merkens, H. (2004) 'Selection Procedures, Sampling, Case Construction' in U. Flick, E. Von Kardorff & I. Steinke (eds.) *A Companion To Qualitative Research* London: Sage Publications.
- Milgram, R. M., Dunn, R. & Price, G. E. (eds.) (1993) *Teaching and Counselling Gifted and Talented Adolescents: An International Learning Style Perspective*. London: Praeger.
- Miller, J. & Duesenberry, P. (2007) Where Are They Now? The First Graduates of The BA (Scottish Music) Degree, Royal Scottish Academy of Music and Drama). Available at <Http://Www.Palatine.Ac.Uk/Events/Viewdoc/228/> (last accessed 20 June 2008).
- Mills, J. (2007) *Instrumental Teaching*. Oxford: Oxford University Press.
- Miyake, N. (1986) Constructive Interaction and the Iterative Process of Understanding in Cognitive Science, Vol .10, no. 2, pp.151-177.
- Mönks, F.J. & Ferguson, T.J. (1982) Gifted adolescents: an analysis of their psychosocial development in *Journal of Youth and Adolescence*, Vol. 12, No. 12, pp.1-18.
- Mönks, F.J./ & Katzko, M.W. (2005). Giftedness and Gifted Education. In R.J. Sternberg & J.E. Davidson (Eds.), *Conceptions of Giftedness* (pp.187-200). Cambridge, MA: Cambridge University Press.
- Montgomery, D. (2010) 'Gifted and Talented Children with Special Educational Needs: Lifting Underachievement in Dual and Multiple Exceptionalities'. In B. Wallace, S. Leyden, D. Montgomery, C. Winstanley, M. Pomerantz, and S. Fitton (2010) *Raising the Achievement of All Pupils Within an Inclusive Setting: Practical strategies for developing Best Practice*. London: Routledge.
- Moon, S. (2003) 'Personal Talent' in *High Ability Studies*, vol. 14, no. 1, pp.5-21.
- Moorey, G. (2007) 'Music, identity and oblivion' in *Networking Knowledge: Journal of the MeCCSA Postgraduate Network*, Vol 1, No 2, pp.1-16.
- Moser, C. (2000) Music and Education: Towards A Non-Philistine Society, *Royal Society of the Arts Lecture* (8 John Adam Street, London, RSA).
- Munro, A. (1996) *The Democratic Muse: Folk Music Revival in Scotland*. Aberdeen: Scottish Cultural Press.
- Murphy, C. (1999) 'How Far Do Tests of Musical Ability Shed Light On The Nature of Musical intelligence?' *British Journal of Music Education*, vol. 16, no. 1, pp.39-50.

- Murrell, P. (no date) 'Defining the Community Teacher'. Available at: [s.b5z.net/i/u/10091736/f/MurrellConceptPaper.pdf](http://s.b5z.net/i/u/10091736/f/MurrellConceptPaper.pdf)
- Muuss, R. (1968) *Theories of Adolescence*. New York: Random House.
- Nawrot, E. S. (2003) 'The Perception of Emotional Expression in Music: Evidence From Infants, Children and Adults' in *Psychology of Music*, vol. 31, no. 1, pp.75-92.
- Neisser, U. (1979) 'The Concept of Intelligence' in R. J. Sternberg & D. K. Detterman (eds.) *Human Intelligence*. Norwood: New Jersey, Ablex.
- Nevo, B. & Sela, R. (2003) 'On The Interchangeability of Individually Administered and Group Administered Ability Tests' in *High Ability Studies*, vol. 14, no. 2, pp.185-190.
- O'Hagan, T. (1975) 'Quality and Equality in Education' in S. Brown (ed.) *Philosophers Discuss Education*. London: The Macmillan Press Ltd.
- O'Neill, S. A. (2002) 'The Self-Identity of Young Musicians' in R. A. R. MacDonald, D. J. Hargreaves & D. Miell (eds.) *Musical Identities*. Oxford: Oxford University Press.
- O'Neill, S. A. & McPherson, G., E. (2002) 'Motivation' in R. Parncutt & G. McPherson (eds.) *The Science and Psychology of Musical Performance: Creative Strategies for Teaching and Learning*. Oxford: Oxford University Press.
- Office of Superintendent of Public Instruction (OSPI) (2008) Developed Performance Assessments for the Arts. *Documentary Theme Song*. Available at: <http://www.k12.wa.us/arts/PerformanceAssessments/Music/Grade10-DocumentaryThemeSong.doc> (lasted accessed on 12 June 2011).
- Olszewski-Kubilius, P. (1998) 'Developing The Talents of Academically Gifted High School Students: Issues for Secondary School Administrators' in *NASSP Bulletin*, vol. 82, no. pp.85-92.
- Olszewski-Kubilius, P. (1999) 'A Critique of Renzulli's Theory into Practice Models for Gifted Learners' in *Journal for The Education of The Gifted*, vol. 23, no. 1, pp.55-64.
- Ostatnikova, D. (2004) 'internal Environment and The Role of Hormones in The Development of Natural Abilities' in *High Ability Studies*, vol. 15, no. 2, pp.163-164.
- Panksepp, J. (1995) 'The Emotional Sources of "Chills" induced By Music' in *Musical Perception*, vol. 13, no. 2, pp.171-205.
- Parncutt, R. & G. McPherson (eds.) *The Science and Psychology of Music Performance*. New York: Oxford.
- Pearce, J. M. S. (2005) 'Selected Observations On Amusia' in *European Neurology*, vol. 54, pp.145-148.
- Pendarvis, E., Howley, C. & Howley, A. (1999) 'Renzulli's Triad: School for Work for Gifted Students' in *Journal for The Education of The Gifted*, vol. 23, no. 1, pp.75-84.
- Philpott, C. (ed.) (2001) *Learning To Teach Music in The Secondary School*. London: Routledge Falmer.
- Philpott, C. (2005) 'Equality of opportunity and instrumental tuition' in C. Philpott & C. Plummeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Philpott, C. & Plummeridge, C. (eds.) (2005) *Issues in Music Teaching*. London: Routledge Falmer.
- Pickard, A. & Bailey, R. (2009) 'Crystallising Experiences Among Young Elite Dancers' in *Sport, Education and Society*, vol. 14, no. 2, pp.165-180.

- Piechowski, M. M. & Colangelo, N. (2004) 'Developmental Potential of The Gifted' in R. J. Sternberg (ed.) *Definitions and Conceptions of Giftedness* California: Corwin Press.
- Pitts, S. (2000) 'Reasons To Teach Music: Establishing A Place in The Contemporary Curriculum' in *British Journal of Music Education*, vol. 17, no. 1, pp.31-39.
- Pitts, S. E. (2005) *Valuing Music Participation*. Hants: Ashgate Publications Limited.
- Plucker, J. A. & Renzulli, J. S. (1999) 'Psychometric Approaches To The Study of Human Creativity' in R. J. Sternberg (ed.) *Handbook of Creativity*. Cambridge: Cambridge University Press.
- Plummeridge, C. (2001) 'The Place of Music in The School Curriculum' in C. Philpott (ed.) *Learning To Teach Music in The Secondary School*. London: Routledge Falmer.
- Porath, M. (2004) 'Transforming Gifts into Talents: The DMGT As A Developmental Theory - A Response' in *High Ability Studies*, vol. 15, no. 2, pp.153-155.
- Porter, L. (1999) *Gifted Young Children: A Guide for Teachers and Parents*. Buckingham: Open University Press.
- Potter, S. (2006): *Doing Postgraduate Research*, London: Sage.
- Powney, J. & Watts, M. (1987) *Interviewing in Educational Research*. London: Routledge and Keegan Paul.
- Pring, L. (2005) Savant Talent, *Developmental Medicine and Child Psychology*, vol. 47, pp.500-503.
- Radnor, H., Koshy, V. & Taylor, A. (2007) 'Gifts, Talents and Meritocracy' in *Journal of Education Policy*, vol. 22, no. 3, pp.283-298.
- Ramachandran, V. S. (ed.) (1994) *Encyclopedia of Human Behavior*. New York: Academic.
- Reed, J. & Roskell-Payton, V. (1997) 'Focus Groups: Issues of Analysis and Interpretation' in *Journal of Advanced Nursing*, vol. 26, pp.765-770.
- Reis, S. M. (2003) 'The Underachievement of Gifted Students: Multiple Frustrations and Few Solutions' in *Gifted and Talented: The Journal of The National Association for Gifted Children (England)*, vol. 7, no. 2, pp.23-33.
- Reis, S. M. & Renzulli, J. S. (1985) 'The Secondary Level Enrichment Triad Model: Excellence Without Elitism' in *NASSP Bulletin*, vol. 69, no. 31, pp.33-40.
- Renzulli, J. S. (1977) *The Enrichment Triad Model: A Guide for Developing Defensible Programs for The Gifted and Talented*. Connecticut: Creative Learning Press.
- Renzulli, J. S. (1978) 'What Makes Giftedness? Reexamining A Definition' in *Phi Delta Kappan*, vol. 60, no. 3, pp.180-185.
- Renzulli, J. S. (1984) 'The Triad/Revolving Door System: A Research-Based Approach To Identification and Programming for The Gifted and Talented' in *Gifted Child Quarterly*, vol. 28, no. 4, pp.163-170.
- Renzulli, J. S. (1986) 'The Three-Ring Conception of Giftedness: A Developmental Model for Creative Productivity' in R. J. Sternberg & J. E. Davidson (eds.) *Conceptions of Giftedness*.(Cambridge: Cambridge University Press).
- Renzulli, J. S. (1998) 'The Three-Ring Conception of Giftedness'. Available at: <http://www.sp.uconn.edu/~nrcgt/sem/semart13.html> (last accessed 28 August 2007).

- Renzulli, J. S. (1999) 'What Is This Thing Called Giftedness? A Twenty-Five Year Perspective' in *Journal for The Education of The Gifted*, vol. 23, no. 1, pp.3-52.
- Renzulli, J. S. (2000) 'The Identification and Development of Giftedness As A Paradigm for School Reform' in *Journal of Science Education and Technology*, vol. 9, no. 2, pp.95-114.
- Renzulli, J. S. (ed.) (2004a) *Identification of Students for Gifted and Talented Programs* California: Corwin Press.
- Renzulli, J. S. (2004b) 'Myth: The Gifted Constitutes 3-5% of The Population' in J. S. Renzulli (ed.) *Identification of Students for Gifted and Talented Programs*. California: Corwin Press.
- Renzulli, J. S. & Delcourt, M. A. B. (2004) 'The Legacy and Logic of Research On The Identification of Gifted Persons' in J. S. Renzulli (ed.) *Identification of Students for Gifted and Talented Programs*. California: Corwin Press.
- Renzulli, J. S., Gentry, M. & Reis, S. M. (2007) 'Enrichment Clusters for Developing Creativity and High-End Learning' in *Gifted and Talented International*, vol. 22, no. 1, pp.39-46.
- Renzulli, J. S. & Reis, S. M. (2007) The Schoolwide Enrichment Model Executive Summary, in U. S. Department of Education. Available at <http://www.gifted.uconn.edu/sem/semexec.html> (last accessed 20 January 2007).
- Renzulli, J. S., Reis, S. M. & Smith, L. H. (1981) *The Revolving Door Identification Model*. Connecticut: Creative Learning Press, inc.
- Renzulli, J. & Smith, L. (1977) 'Two Approaches To Identification of Gift' in *Exceptional Children*, vol. 43, no. 8, pp.512-518.
- Renzulli, J. S., Smith, L. H. & Reis, S. M. (1982) 'Curriculum Compacting: An Essential Strategy for Working With Gifted Students' in *The Elementary School Journal*, vol. 82, pp.185-196.
- Renzulli, J., Smith, L., White, A., Callahan, C. & Hartman, R. (1976) Scales for Rating the Behavioral Characteristics of Superior Students. Connecticut: Creative Learning Press.
- Richardson, C. P. (1990) 'Measuring Musical Giftedness' in *Music Educators Journal*, vol. 76, no. 7, pp.40-44.
- Roberts, B. (1991) 'Music Teacher Education As Identity Construction' in *International Journal of Music Education*, vol. 18, pp.30-38.
- Robinson, A. (1989) 'The Two Faced Label' in *Gifted Child Today*, vol. 12, pp.34-36.
- Robinson, A. (1990) 'Does That Describe Me? Adolescents, Acceptance of The Gifted Label' in *Journal for The Education of The Gifted*, vol. 13, no. 3, pp.245-254.
- Robinson, N. M. (1999) 'Exchanging New Hats for Old: A Response To Francoys Gagné's "My Convictions About The Nature of Abilities, Gifts, and Talents"' in *Journal for The Education of The Gifted*, vol. 22, no. 2, pp.180-191.
- Ross, P. E. (2006) 'The Expert Mind' in *Scientific American*, vol. 295, no. 2, pp.46-53.
- Roulston, K. (2006) 'Mapping The Possibilities of Qualitative Research in Music Education: A Primer' in *Music Education Research*, vol. 8, no. 2, pp.153-173.
- Ruane, J. M. (2005) *Essentials of Research Methods: A Guide To Social Science Research*. Oxford: Blackwell Publishing.
- Ruddock, E. & Leong, S. (2005) 'I Am Unmusical!': The Verdict of Self-Judgement' in *International Journal of Music Education*, vol. 23, no. 1.

- Sacks, O. (2006) 'The Power of Music' in *Brain*, vol. 129, pp.2528-2532.
- Savage, J. (2006) *Meeting The Needs of Your Most Able Pupils – Music*. London: David Fulton Publishers Ltd.
- Scherer, K. R. (2004) 'Measuring Emotions induced By Music' in *Journal of New Music Research*, vol. 33, no. 3, pp.239-251.
- Scherer, K. R. & Zentner, M. R. (2001) 'Emotional Effects of Music: Production Rules' in P. N. Juslin & J. A. Sloboda (eds.) *Music and Emotion: Theory and Research* Oxford: Oxford University Press.
- Schwartz, L. L. (1975) *The Exceptional Child: A Primer*. Belmont, Wadsworth Publishing Company Inc.
- Scott-Jones, D. (1984) 'Family influence On Cognitive Development and School Achievement' in *Review of Research in Education*, vol. 11, pp.259-304.
- Scott, P. H. (2003) *Scotland Resurgent: Comments On The Cultural and Political Revival of Scotland*. Edinburgh: Saltire Society.
- Scottish Education Department (SED) (1976) *Gifted Young Musicians and Dancers: Report of A Working Group Set Up To Their General and Specialised Education* (Edinburgh: HMSO)
- Scottish Educational Research Association (SERA) (2005) *Ethical Guidelines for Research*. Available at: [www.sera.ac.uk/docs/.../SERA%20Ethical%20GuidelinesWeb.PDF](http://www.sera.ac.uk/docs/.../SERA%20Ethical%20GuidelinesWeb.PDF)
- Scottish Network for Able Pupils & The Scottish Government (2009) *Guidance for Addressing The Needs. of Highly Able Pupils*, University of Glasgow). Available at [http://www.gla.ac.uk/media/media\\_138127\\_en.pdf](http://www.gla.ac.uk/media/media_138127_en.pdf) (last accessed 12 March 2010).
- Seashore, C. E. (1919) *The Psychology of Musical Talent*. Boston: Silver, Burdett and Company.
- Scottish Executive Education Department (SEED) (2000) *Creating Our Future...Minding Our Past: Scotland's National Cultural Strategy*. Available at <http://www.scotland.gov.uk/nationalculturalstrategy/docs/cult-09.asp> (last accessed 20 June 2009).
- Scottish Executive Education Department (SEED) (2000b) *Improving Our Schools: Special Educational Needs.: The Programme of Action*. Available at <http://www.scotland.gov.uk/library2/doc15/sen-00.asp> (last accessed 20 June 2009)
- Scottish Government (2007) *Pupils in Scotland 2007*, National Statistics Publication for Scotland. Available at <http://www.scotland.gov.uk/resource/doc/233368/0063951.pdf> (last accessed 20 April 2009).
- Scottish Government (2009) *Experiences and Outcomes: Music*. Available at <http://www.ltscotland.org.uk/myexperiencesandoutcomes/expressivearts/music/index.asp> (last accessed 27 July 2011).
- Scottish Office Education Department (SOED) (1993) *The Education of Able Pupils P6-S2: A Report By HM Inspectors of Schools* (Edinburgh: SOED).
- Scottish Office Education Department (SOED) (1998) *Helen Liddell Launches £320 Million Excellence Fund To Raise Standards in Schools*. Available at <http://www.scotland.gov.uk/news/releases/1998/11/72b8a89f-20ea-479b-b186-59d6241f853d> (last accessed 10 July 2009).

- Schripp, L. & Subotnik, R. (2003) 'Directions for innovation in music education: integrating conceptions of musical giftedness into general educational practice and enhancing innovation on the part of musically gifted students' in L.V. Shavinina (ed.) (2003) *The International Handbook on Innovation*. Netherlands: Elsevier Science Ltd.
- Shaughnessy, M. F. (2004) 'An Interview With Anita Woolfolk: The Educational Psychology of Teacher Efficacy' in *Educational Psychology Review*, vol. 16, no. 2, pp.153-176.
- Shaughnessy, M. F. & Fickling, K. L. (1993) 'Testing for Giftedness: The Pros, Cons and Concerns' in *Gifted Education International*, vol. 9, pp.82-84.
- Shaughnessy, M. F., Siegle, J., Stanley, N. & Stockard, J. (1996) 'Gifted Children's, Teacher's and Parent's Perceptions of Influential Factors On Gifted Development' in *Gifted Education International*, vol. 11, no. 2, pp.76-78.
- Shavinina, L. (ed.) (2009) *International Handbook On Giftedness*. Dordrecht: Springer.
- Shavinina, L. & Ferrari, M. (eds.) (2004) *Beyond Knowledge: Extra Cognitive Aspects of Developing High Ability*. New Jersey: Lawrence Erlbaum Associates Publishers.
- Sheridan, M. & Byrne, C. (2002) *Ebb and flow of assessment in music*. British Journal of Music Education, vol. 19, no. 2, pp.135-143.
- Shuter-Dyson, R. & Gabriel, C. (1981) *The Psychology of Musical Ability*. London: Routledge.
- Silverman, M. (2008) 'A Performer's Creative Processes: Implications for Teaching and Learning Musical interpretation' in *Music Education Research*, vol. 10, no. 2, pp.249-268.
- Simonton, D. K. (2004) 'Adding Developmental Trajectories To The DMGT: Nonlinear and Non-Additive Genetic inheritance and Expertise Acquisition' in *High Ability Studies*, vol. 15, no. 2, pp.157-158.
- Sloboda, J. (1990) 'Musical Excellence - How Does It Develop?' in M. J. A. Howe (ed.) *Encouraging The Development of Exceptional Skills and Talents*. Oxford: BPS Blackwell.
- Sloboda, J. (1993) 'Musical Ability' in CIBA (eds.) *The Origins and Development of High Ability*. Chichester: John Wiley and Sons.
- Sloboda, J. (2002) *The Tingle Factor*. Available at <http://www.brllsi.org/proceed03/lecture200221.htm> (last accessed 17 February 2007).
- Sloboda, J., Davidson, J. E. & Howe, M. J. A. (1994) 'Is Everyone Musical?' in *The Psychologist*.
- Sloboda, J., Hermelin, B. & O'Connor, N. (1985) 'An Exceptional Musical Memory' in *Musical Perception*, vol. 3, pp.155-170.
- Sloboda, J. & Howe, M. J. A. (1999) 'Musical Talent and individual Differences in Musical Achievement: A Reply To Gagne (1999)' in *Psychology of Music*, vol. 27, pp.52-54.
- Sloboda, J., Wise, K. & Peretz, I. (2005) 'Quantifying Tone Deafness in The General Population' in *New York Academy of Sciences*, vol. 1060, pp.255-265.
- Sloboda, J. A. (1985) *The Musical Mind: The Cognitive Psychology of Music*. London: Oxford University Press.

- Slovan, A. (2009) In Defence of a Variety of Elitism. Available at: <http://www.cs.bham.ac.uk/~axs/misc/elitism.html> (last accessed 1st September 2011)
- Smith, C. M. M. (ed.) (2006) *Including The Gifted and Talented: Making inclusion Work for More Gifted and Able Learners*. London: Routledge.
- Smithson, J. (2000) 'Using and Analysing Focus Groups: Limitations and Possibilities' in *International Journal of Social Research Methodology*, vol. 3, no. 2, pp.103-118.
- Sosniak, L. (1985) 'Phases of learning' in B. Bloom (ed.) *Developing Talent in Young People*. New York: Ballantine Books.
- Spruce, G. (2005) 'Music assessment and the hegemony of musical heritage' in C. Philpott & C. Plummeridge (eds.) *Issues in Music Teaching*. London: Routledge Falmer.
- Sternberg, R. J. (1984) 'Toward A Triarchic Theory of Human Intelligence' in *Behavioural and Brain Sciences*, vol. 7, no. 2, pp.269-315.
- Sternberg, R. J. (1993) The Concept of 'Giftedness': A Pentagonal Implicit Theory in CIBA (ed.) *The Origins and Development of High Ability*. Chichester: John Wiley & Sons.
- Sternberg, R. J. (1995) 'A Triarchic Approach To Giftedness' in *The National Research Center On The Gifted and Talent*. Connecticut: Yale University.
- Sternberg, R. J. (1999) 'Successful Intelligence: Finding A Balance' in *Trends in Cognitive Sciences*, vol. 3, no. 11, pp.436-443.
- Sternberg, R.J. (ed.) (1999) *Handbook of Creativity*. Cambridge: Cambridge University Press.
- Sternberg, R. J. (2003a) 'The Other Three Rs: Part Three, Resilience' in *Monitor On Psychology*, vol. 34, no. 5. Available at <http://www.apa.org/monitor/apr03/pc.aspx> (last accessed 4 April 2010).
- Sternberg, R. J. (2003b) The Other Three Rs: Part Two Reasoning in *Monitor On Psychology*, vol. 34, no. 4. Available at <http://www.apa.org/monitor/apr03/pc.aspx> (last accessed 5 April 2010).
- Sternberg, R. J. (2003c) Responsibility, One of The Other Three Rs, in *Monitor On Psychology*, vol. 34, no. 3. Available at <http://www.apa.org/monitor/apr03/pc.aspx> (last accessed 7 April 2010).
- Sternberg, R. J. (ed.) (2004) *Definitions and Conceptions of Giftedness*. California: Corwin Press.
- Sternberg, R. J., & Davidson, J. E. (Eds.). (1986) *Conceptions of giftedness*. New York: Cambridge University Press.
- Sternberg, R.J. & Detterman, D. K. (eds.) (1979) *Human Intelligence*. Norwood: New Jersey, Ablex.
- Sternberg, R.J. & Wagner, R. (eds.) (1986) *Practical intelligence: Origins of Competence in The Everyday World*. New York: Cambridge University Press.
- Sternberg, R. J. & Williams, W. M. (2002) *Educational Psychology*. Boston: Allyn and Bacon.
- Sternberg, R. J. & Zhang, L. (2004) 'What Do We Mean By Giftedness? A Pentagonal Implicit Theory' in R. J. Sternberg (ed.) *Definitions and Conceptions of Giftedness* California: Corwin Press.
- Stevens, P. E. (1996) 'Focus Groups: Collecting Aggregate-Level Data To Understand Community Health Phenomena' in *Public Health Nursing*, vol. 13, no. 3, pp.170-175.

- Stevens, R. (1983) *Erik Erikson: An Introduction* Oxford: Oxford University Press.
- Stollery, P. & McPhee, A. D. (2002) 'Some Perspectives On Musical Gift and Musical Intelligence' in *British Journal of Music Education*, vol. 19, no. 1, pp.89-102.
- Storr, A. (1997) *Music and The Mind*. London: Harper Collins Publishers.
- Subotnik, R. (2004) 'Transforming Elite Musicians into Professional Artists' in L. Shavinina & M. Ferrari (eds.) *Beyond Knowledge: Extra Cognitive Aspects of Developing High Ability*. New Jersey: Lawrence Erlbaum Associates Publishers.
- Subotnik, R. & Jarvin, L. (2005) 'Beyond Expertise: Conceptions of Giftedness As Great Performance' in R. Sternberg & J. Davidson (eds.) *Conceptions of Giftedness*. New York: Cambridge University Press.
- Subotnik, R. & Olsewski-Kubilius, P. (1997) 'Restructuring Special Programs to Reflect the Distinctions Between Children's and Adults' Experiences with Giftedness' in *Peabody Journal of Education*, Vol. 72, Nos. 3 & 4.
- Subotnik, R., Olsewski-Kubilius, P. & Arnold, K. (2003) 'Beyond Bloom: Revisiting Environmental Factors That Enhance Or Impede Talent Development' in J. H. Borland (ed.) *Rethinking Gifted Education*. New York: Teachers College Press.
- Swanwick, K. (1983) *The Arts in Education: Dreaming Or Awake?*. London: University of London Institute of Education.
- Swanwick, K. (1988) *Music Mind and Education*. London: Routledge.
- Swanwick, K. (1994) *Musical Knowledge: intuition, Analysis and Music Education*. London: Routledge.
- Swanwick, K. & Franca, C. C. (1999) 'Composing, Performing and Audience-Listening As Indicators of Musical Understanding' in *British Journal of Music Education*, vol. 16, no. 1, pp.5-19.
- Swetnam, D. & Swetnam, R. (2009): *Writing Your Dissertation*, Oxford: How to Books Ltd.
- Tannenbaum, A. J. (1986) 'Giftedness: A Psychosocial Approach' in R. J. Sternberg & J. E. Davidson (eds.) *Conceptions of Giftedness*. Stanford: Stanford University Press.
- Thomas, D. R. (2006) 'A General Inductive Approach for Analyzing Qualitative Evaluation Data' in *American Journal of Evaluation*, vol. 27, no. 2, pp.237-245.
- Tipping, J. (1998) 'Focus Groups: A Method of Needs Assessment' in *The Journal of Continuing Education in The Health Professions*, vol. 18, pp.150-153.
- Te Kete Ipurangi (No Date) Gagné's Differentiated Model of Giftedness and Talent (DMGT), (Wellington, Ministry of Education). Available at [http://www.tki.org.nz/r/gifted/reading/pdfs/giftedness\\_e.pdf](http://www.tki.org.nz/r/gifted/reading/pdfs/giftedness_e.pdf) (last accessed 10 June 2009).
- Torrance, E. P. (1979) 'Unique Needs of The Creative Child and Adult' in A. H. Passow (ed.) *The Gifted and Talented: Their Education and Development. 78th NSSE Yearbook*. Chicago: National Society for The Study of Education.
- Tryon, W. (1981) 'A Methodological Critique of Bandura's Self-Efficacy Theory of Behavior Change' in *Journal of Behavioral and Experimental Psychology*, vol. 12, no. 2, pp.113-114.

- Van Audenhove, L. (2007) 'Expert interviews and Interview Techniques for Policy Analysis' Paper Presented Available at *Institute for European Studies* (Brussels, Belgium).
- Van Boxtel, H. W., & Mönks, F. J. (1992) 'General, social, and academic self-concepts of gifted adolescents' in *Journal of Youth and Adolescence*, Vol. 21, pp.169-186.
- Wall, A. L. (2001) 'Evaluating An Undergraduate Unit Using A Focus Group' in *Quality Assurance in Education*, vol. 9, no. 1, pp.23-30.
- Wallace, M. & Poulson, L. (eds.) (2003) *Learning To Read Critically in Educational Leadership and Management*. London: Sage.
- Walters, J. W. & Gardner, H. (1986a) Crystallizing experiences: Discovering an intellectual gift. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (pp. 306-331). Cambridge: Cambridge University Press.
- Walters, J. & Gardner, H. (1986b) 'The Theory of Multiple Intelligences: Some Issues and Answers' in R. J. Sternberg & R. Wagner (eds.) *Practical intelligence: Origins of Competence in The Everyday World*. New York: Cambridge University Press.
- Weinberger, N. M. (2001) 'Musical Talent: Real Or Myth?' in *Musica Research Notes*. Available at <http://www.musica.uci.edu/mrn/V8I2S01.html#real> (last accessed 20 November 2006).
- Weinberger, N. M. (2004) 'Music and The Brain' in *Scientific American*, vol. 291, no. 5, pp.88-95.
- Westerlund, H. (2006) 'Garage Rock Bands: A Future Model for Developing Musical Expertise?' in *International Journal of Music Education*, vol. 24, no. 2, pp.119-125.
- Western Australia Government Schools (2003) School of Instrumental Music Musical Aptitude Indicator. Available at: <http://www.sim.iinet.net.au/mai.html> (last accessed on 12 June 2011)
- Wilson, V. (1997) 'Focus Groups: A Useful Qualitative Method for Educational Research?' in *British Educational Research Journal*, vol. 23, no. 2, pp.209-215.
- Winch, C. & Gingell, J. (2003) *Key Concepts in The Philosophy of Education*. Cornwall: TJ International Ltd.
- Winner, E. (1997) 'Exceptionally High Intelligence and Schooling' in *American Psychologist*, vol. 52, no. 10, pp.1070-1081.
- Winstanley, C. (2004a) *Too Clever By Half: A Fair Deal for Gifted Children*. Stoke On Trent: Trentham Books.
- Winstanley, C. (2004b) What It Is Fair To Do for Gifted Children, *Roehampton Research Conference in Education* Paper Delivered at Roehampton: University, London.
- Winstanley, C. (2006) 'Inequity in Equity: Tackling The Excellence-Equality Conundrum' in C. M. M. Smith (ed.) *Including The Gifted and Talented: Making inclusion Work for More Gifted and Able Learners*. London: Routledge.
- Winstanley, C. (2007) Ingredients of Challenge, *SNAP Annual Conference* (Keynote presentation, University of Glasgow, Glasgow, June 2007).
- Winston, R. (2004) *The Human Mind and How To Make The Most of It*. London: Bantam Press.
- Woolfolk, A., Hughes, M. & Walkup, V. (eds.) (2007) *Psychology in Education*. Harrow: Pearson Education Limited.
- Young, P. & Tyre, C. (1992) *Gifted Or Able? Realizing Children's Potential*. Buckingham: Open University Press.

- Young, R. L. & Nettlebeck, T. (1995) 'The Abilities of A Musical Savant and His Family' in *Journal of Autism and Developmental Disorders*, vol. 25, no. 3, pp.231-248.
- Zimmerman, E. (ed.) (2004) *Artistically and Musically Talented Students*. California: Corwin Press.