



2012

Evaluation of Sistema Aotearoa

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Prepared for: Sistema Aotearoa

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1 Executive summary

Introduction

1. This report sets out the findings of an evaluation of the trial programme, Sistema Aotearoa. The evaluation field-work was carried out between May and August 2012 by The Knowledge Institute Ltd and DBZ Consultancy Ltd.

Sistema Aotearoa trial programme

2. The Sistema Aotearoa trial began in April 2011, and the first cohort of participants completed their first year in the programme in April 2012. The programme is now in its second year of operation, with a second cohort of children beginning in April 2012. The evaluation is focused on the first cohort of participants.
3. The children participating in the first cohort of Sistema Aotearoa come from seven Otara primary schools – Te Kura Kaupapa Māori o Piripono, Bairds Mainfreight Primary School, East Tamaki Primary School, Rongomai Primary School, Sir Edmund Hillary Collegiate, St Johns the Evangelist School, and Wymondley Primary. In April 2011, 106 children enrolled in the first course. Almost all of the children were aged between 5 and 8 years of age and nearly all were from Māori, Samoan, Tongan, Niuean or Cook Island families.
4. The programme is funded, in most part, by the Ministry for Culture and Heritage, with Creative New Zealand recently undertaking this role, and delivery is supported by the Auckland Philharmonia Orchestra (APO).

Evaluation methodology

5. Sistema Aotearoa is in its second year of delivery, and at this early stage, the primary evaluation purpose was to establish how well programme implementation and delivery was going. This is commonly called a 'process evaluation'. However, there are a wide range of outcomes that Sistema Aotearoa intends contributing to, and these are expressed in an outcome logic developed as part of the evaluation (see Figure 2 on page 24). Therefore, a further purpose of the evaluation was to ascertain whether, and to what extent, there is evidence of the programme contributing to some of these outcomes (outcome evaluation). It was not expected, at this early stage, that the programme would demonstrate a strong contribution to higher order or long-term outcomes, however, it would be reasonable to expect that there would be signs of some early outcomes emerging and possibly even evidence of a contribution to longer term outcomes.

Key evaluation questions

6. The evaluation addressed the following key questions:
 - a) To what extent is Sistema Aotearoa's design, content and delivery high quality (process evaluation)?
 - b) To what extent, and in what ways, is Sistema Aotearoa contributing to outcomes of value for the children, families and the local community of Otara (outcome evaluation)?
 - c) What, if any, other impacts does the programme have?

Evaluation approach

7. The evaluation used an evaluation specific approach (Davidson, 2005). Evaluative criteria or dimensions were developed in consultation with key stakeholders from the Sistema Aotearoa programme, the Otara community, contributing government agencies, and from contributing schools (see Table 3 on page 26). These criteria therefore represent the agreed processes and outcomes by which the quality and value of the Sistema Aotearoa trial could be assessed. A generic evaluative performance rubric was used to assess the level of performance achieved by the trial programme on each of the evaluative criteria (Table 4 on page 30).
8. The data collection process used a mix of methods including:
 - a) A review of relevant literature.
 - b) Visits to Sistema Aotearoa based at the Otara Music Arts Centre (OMAC), and observation of the July 2012 holiday programme.
 - c) Interviews and focus groups with key stakeholders, including staff, students, and families of Sistema Aotearoa, funding agencies, community members, Steering Group members, and principals and teachers of contributing schools.
 - d) Sistema Aotearoa project documentation review and analysis of programme data.
 - e) Interviews and focus group feedback on the appropriateness of the evaluative criteria.

Literature summary

9. A detailed literature review was undertaken to inform the evaluation. Literature on music education, the outcomes of music education (individual, community and societal outcomes), and music education programming was reviewed. In summary, the literature identified the following:

- a) Music education refers to a wide variety of activities offered in a range of settings, i.e., in school, outside of school, in the community etc.
 - b) Social music education is a strongly values-based paradigm that looks to provide wider accessibility to music, often in non-traditional ways. It seeks to provide a model of engagement that is underpinned by values and principles such as respect, responsibility, co-operation etc, and is intentional about influencing a broad range of social goals in transformative ways (personal, community as well as societal).
 - c) There is currently mixed evidence about the influence of music education on other domains such as language, literacy, maths etc, although there is a body of literature from neuroscience that suggests extensive and active musical engagement can influence a number of brain functions and processes.
 - d) There appear to be a number of cognitive processes and neural networks normally associated with music making that are shared with other mental activities and therefore the process of learning music may 'transfer' to learning in non-music domains such as spatial reasoning, memory, auditory coding of sounds, cognitive ability etc.
 - e) The social and personal development outcomes of music training have received less academic attention than intellectual development and achievement, and unsurprisingly have also been deemed difficult to measure. The empirical evidence is not strong, however, with regards to children, the evidence points to music training as a mechanism for improving self image, self awareness, self control, developing positive self attitudes, as well as inducing feelings of confidence and motivation.
 - f) For young people, participation in music education has also been found to create an intrinsic motivation through allowing them to experience success, develop pride in their own development and thus increase willingness to try and willingness to learn.
 - g) The music education literature predominately focuses on individual impacts or outcomes, as evaluating the community, social and/or economic impacts of music education is methodologically complex.
10. However, wider societal impacts discussed in the literature include:
- The generation of a sense of identity, connection and belonging, enabling children to better engage with the world around them and connect them to their community.
 - The creation of social cohesion, and the fostering of positive intergroup relations.
 - Fostering increased trust between participants.

- Improved community cohesion and pride.
 - Higher rates of community involvement and community inclusion.
 - Addressing negative and/or illegal social behaviours.
11. Group musical education and interaction is thought to foster the establishment of social relationships and the development of social skills such as empathy, respect and pro-social behaviour. Some of the features of musical programming deemed to be effective include the following:
- Longer programme duration is more likely to correlate with children's ability to transfer their learning from musical education to other more distal outcome domains.
 - Age appropriate developmental activities are important for the transfer of musical learning to other domains.
 - Parental involvement and participation can improve the effectiveness of music education.
 - Positive relationships between programme staff (e.g., facilitators and tutors etc) improves programme effectiveness.
 - Group-based learning is effective in fostering social relationships and the development of empathy, respect and pro-social behaviour.
 - A fun/playful ethos and approach is more likely to engage children in music education.
 - Opportunities to master skills in a music programme are associated with increased feelings of achievement.
 - Community-based musical programming with broad social goals needs a collaborative action-research approach.
12. Potential barriers to effective social music education programmes include:
- Teachers lacking competency and confidence to address community or societal issues.
 - Difficulties pertaining to resources and funding.
 - The reluctance of parents to become involved.
 - A lack of buy-in from participating schools.

Outcome evaluation findings

13. Sistema Aotearoa is a high performing programme, with strong leadership and management, good systems and structures, and high levels of support from the community, funders, schools and parents. There is also promising early evidence that the programme may well be contributing to a range of social, developmental, musical and educational outcomes for

the children participating in the programme, as well as for their families, the participating schools and the wider community.

14. Table 1 below illustrates the extent to which the outcomes of value for children, families, schools, the community and for the programme overall were found to have been achieved. Sistema Aotearoa's performance is strong in terms of the outcomes it is achieving, particularly for a programme at such an early stage of development.
15. For a programme in just its second year of operation to have produced such positive results is remarkable. The evidence suggests that in a very short time and with limited people and venue resources, those leading, running and supporting the programme have succeeded in embedding a sound platform for the future.

Table 1: Summary of evidence – performance against valued outcomes

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Valued outcomes for children					
Valued outcomes for families					
Valued outcomes for schools					
Valued outcomes for the community					
Valued outcomes in relation to the programme delivery and implementation					

For children

16. Sistema Aotearoa is contributing to children learning positive values, skills and behaviours as well as musical abilities. Children are very enthusiastic about the programme. They are developing their musical expertise and experiencing success with this, and subsequently gaining newfound confidence and belief in themselves. Many now have dreams and aspirations for their future beyond anything they previously imagined.
17. There is also promising evidence that Sistema Aotearoa is increasing children's motivation, as well as their ability to focus and sustain concentration. There is also evidence of these traits flowing through from Sistema to other contexts such as at school, at home and in sporting endeavours.

For families

18. One of the key findings of the evaluation is the pride that was expressed by families in both their children's involvement in the programme and their achievement. All the families spoken to in the evaluation confirmed this finding. Sistema staff, teachers and principals also spoke of the pride that parents display and express in their children's involvement and achievements. It was clear that this strong sense of parental pride was leading to and fostering engagement and commitment to the programme.
19. Furthermore, families were clear that their children's accomplishment and the experience of excellence in such a demanding discipline helps give them, and their children, a belief that they can achieve anything. The Sistema Aotearoa experience is transforming their belief about what is possible, for themselves and their children. Parents clearly saw this programme as a wonderful opportunity that had opened doors they never thought possible.

For schools

20. The schools are strongly supportive of Sistema Aotearoa. They report that participating children display a greater maturity and caring for others than other children of the same age, and are coping better, in many different ways, at school. Some teachers also report improved development of key competencies, in particular 'relating to others'. Although it is too early for the programme to demonstrate that it is contributing to increased academic achievement, there are early signs that this may also be occurring.
21. There is also evidence that teachers' exposure to the programme, seeing children learn complex and difficult skills and succeed, is transforming their own beliefs and understanding about what many of these children are capable of.

This programme allows children to excel...(Child) struggles in reading and numeracy but is excelling in music (with Sistema). It's brilliant...able to give a more well rounded picture back to parents...Without Sistema I'm not sure I would have recognised that talent...Next year I would change how we would do it... I would expose more children [to the programme] – [you] don't know who will excel.

For the community

22. The Sistema Aotearoa programme is now well established in the Otara community, and consistent feedback from the community (parents, teachers, community representatives) indicates that there is a high level of acceptance and commitment to the programme. There is also pride in the achievements of local children, especially when playing and performing at prestigious events and locations. The opportunity that Sistema Aotearoa has afforded the community is widely felt to be a

privilege and great opportunity for their children, one that the community previously could not have imagined was possible.

23. Children are also developing new and positive relationships, with other children from across the community and from different schools. There is also some evidence that this may be breaking down some of the community social and cultural barriers that previously existed. This is also experienced by parents when different families are brought together as "Sistema parents" supporting their children.
24. Finally, there is evidence of a growing awareness beyond the local community of the really good things that are going on in Otara.

In relation to the programme

25. Retention for the first year of Sistema Aotearoa is 70%. A 30% dropout rate occurred within the first year, and a third of this was due to families moving out of the area. This compares well with programmes of this nature generally and with the Scottish Sistema programme which had a 65% retention rate. The programme is thus succeeding at retaining the commitment of families and children in the programme. There is also good evidence that the programme is providing an opportunity for local parents and volunteers to develop skills of their own while supporting the programme. For example, one parent / volunteer has transitioned into a paid administrative position.

Process evaluation findings

26. One of the primary evaluation purposes was to establish, in the first instance, how well the programme implementation and delivery was going. This is commonly called process evaluation. The process focus of the evaluation was expressed in the following evaluation question:
 - a) To what extent is Sistema Aotearoa's design, content and delivery high quality?
27. Our finding is that the implementation of Sistema Aotearoa has been strong, and much better than often occurs at this stage of programme development (Wandersman, 2009). As a trial programme, in its second year of implementation, it would be expected that there are areas where the programme is doing really well, and several areas in need of improvement. In Sistema Aotearoa's case, the design and content of the programme is high quality, and the systems and processes appear to be well structured and embedded, all of which has occurred much faster than would normally be expected.
28. Strong governance, leadership and expert management of the programme have been and are key contributors to this result.
29. Although there are a few areas where improvements could be made, e.g., parental involvement in decision making, these have been identified by Sistema governance and management and are being systematically

addressed. This is a healthy sign of reflective practice and continual improvement.

Table 2: Summary of evidence – process evaluation

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Content and design					
Programme delivery – systems and approaches					
Programme delivery – human resources					
Programme delivery – finances and sustainability					
Programme delivery – relationships					

Programme content and design

30. The Sistema Aotearoa programme is solidly grounded in musical and child development pedagogy. There is also a strong international legacy to build on, from Venezuela and Scotland. The programme draws on the symphony orchestra as a model of group learning and teaching, where children engage and master complex skills and knowledge, involving mental, spiritual, physical, and theoretical aspects.
31. Sistema Aotearoa is unique among Sistema programmes internationally in also having a firm base of child development theory and practice underpinning many aspects of the programme's pedagogy, in particular the transfer of a wide range of values, skills and behaviours (see Appendix 1). These two aspects of programme design have combined to create a distinctive, highly valued musical, social and developmental experience for the children, families and schools involved in the programme.
32. The programme has a sound connection and interaction with the wider international Sistema network, as well as a close working relationship with Sistema Scotland. This network of connections and relationships were essential in providing professional and collegial support and advice during the early development phase of the programme.
33. Whilst there was clear evidence of adherence to founding core principles of Sistema internationally (that is, the programme is free, open and accessible; the programme is group-based; and the programme is inclusive, flexible and holistic), Sistema Aotearoa has adapted the content and design of the programme to reflect the local context. The use of many languages appropriate for participating children in the day-to-day teaching as well as in the musical content is one example.

34. Another example is the way in which the programme design process involved the community, respectfully and thoughtfully ensuring that the cultural diversity of the local community was reflected in many aspects of the programme.
35. A further example has been the way in which the programme has taken into account the complex needs of local schools and families both in terms of logistics and in terms of competing school and familial demands.

Programme systems and approaches

36. Sistema Aotearoa has performed particularly well in relation to the implementation and delivery of the trial. Sistema Aotearoa has captured the pedagogy of the Sistema approach, and adapted it powerfully to the New Zealand context.
37. A distinctive behavioural approach, underpinned by positive reinforcement and role-modelling of key values, skills and behaviours is well embedded in the Sistema Aotearoa approach. There was a range of evidence confirming the many ways in which programme staff model positive behaviours and practices that lead to reciprocated behaviours in the children while in the programme and transferred behaviours outside of the programme.
38. The programme is also successfully providing children with an engaging and positive learning and musical experience that has captured hearts and imaginations. The children we observed, and the feedback from parents and teachers, consistently described children as fully absorbed in their Sistema experience.
39. All child respondents appear to be experiencing something positive from their engagement in Sistema Aotearoa. There was strong evidence that even those children with complex behavioural challenges, physical disabilities and/or social and emotional hardships are being enriched in positive ways through their involvement in Sistema Aotearoa.
40. Furthermore, there was compelling evidence from families about the ability of the programme to create a positive, safe, welcoming environment for their children as well as for themselves.

Human resources

41. The evidence is clear that there is strong, effective leadership of the Sistema Aotearoa programme, across all aspects of the programme's design, management and delivery.
42. The evidence also points to the programme leadership having an understanding of the importance and value of a high performing team, as there is substantial effort and resource applied to the ongoing support and professional development of programme tutors, both paid and voluntary. The quality of professional development is evident in the effective transfer of pedagogical skills, knowledge and behaviours to the diverse group of

tutoring staff in the programme. This is evident in that tutors are confident and capable of working with a large number of children.

43. The Sistema Aotearoa tutors are carefully chosen to reflect a diversity of skills, abilities, cultures and backgrounds, and this ensures there is a rich body of knowledge and experience in the Sistema team. There is a strong belief among the programme leadership that exposing the children to a wide diversity of people creates another opportunity for learning and discovery, and the evidence suggests this is the case.
44. A perhaps unintended, but nonetheless exciting, finding is the learning exchange between the children, the community and the tutors. Tutors have also learned a great deal, and for some the experience has been life changing. Their perceptions and understandings about the communities in which the children live have often been significantly altered. This has happened as a result of tutors gaining a greater understanding and appreciation of the strengths and challenges faced by families in this community, particularly in relation to the effects of poverty on children's access to opportunities.
45. Volunteering is also a vital and valued aspect of the programme design and delivery. There are a diverse range of volunteers and voluntary roles undertaken in support of the programme. For example, there are volunteers from the community helping with the day-to-day delivery of the programme; there are student volunteer tutors from nearby King's College and other schools, parent support helping on outings or at performances, and there are others in the background, providing resources for the programme. It is clear that volunteering in Sistema Aotearoa has mutually beneficial outcomes for the volunteers, as well as for the programme. We found evidence that volunteering is a positive and motivating experience for many volunteers, and for the programme. Volunteers are a very necessary part of ensuring effective and appropriate delivery of the programme and in increasing community buy-in.

Finances and sustainability

46. The Sistema Aotearoa programme is focused on a life cycle model of sustainability whereby those children currently learning in the programme can become role models to new intakes (as is currently demonstrated), and become tutors within the next five years, as well as music teachers in Sistema Aotearoa's future developments.
47. There is a critical mass required for this to occur (that is, where children remain in the programme and become role models and tutors themselves), and depends on Sistema Aotearoa taking on more intakes to build the orchestra, and sustain development over the years. There is an acceptable and sustainable dropout rate occurring at present, however, if the programme stopped taking on children now, the 'orchestral' development would be impaired and the sustainability compromised.
48. Clever management of finances, use of volunteers and resources to support and sustain the programme are evident. Programme staff have

adapted the programme and worked well within the financial constraints to deliver the full Sistema Aotearoa musical experience.

49. Sustainability of Sistema Aotearoa long-term is not assured, however, given this is a trial programme one would expect some form of evaluation such as this to inform ongoing investment decisions. Currently Sistema Aotearoa is reliant on government funding and ad hoc philanthropic funders and donations from those sympathetic to the cause. Given the strong results of this evaluation and the obvious support for the programme in the community long-term sustainable funding should be sought. In our opinion this is a programme which will provide long-term benefits to the community and a substantial social return on investment.
50. Practically speaking the flow-on effects of having a good number of competent, and classically trained Māori and Pacific Island musicians is but one of a number of significant outcomes Sistema Aotearoa programme could have on the communities it serves and on New Zealand as a nation.
51. Other potential impacts looking forward include young people who are motivated, creative and skilled with an ability to learn, who have the potential to become highly valued members of New Zealand's workforce. A strong values-base and caring attitudes are already being demonstrated as part of the behavioural and developmental changes evident in this evaluation. The transference of behavioural patterns and characteristics as a result of the programme into other aspects of life are also evident demonstrating the application of a well thought out programme logic and delivery.

Relationships

52. The Sistema Aotearoa philosophy encompasses the inclusion of all key social environments within the children's lives, that is, families, schools, peers and community. The networks and relationships formed between families, schools, the programme and the community underpin the system that is Sistema. Programme facilitators have built a high level of trust with both parents and schools and this has created significant buy-in, enthusiasm and commitment to the programme.
53. The programme was introduced into the schools first through the in-school group tuition with Year 2s, and sessions with facilitators, after which children were invited into the programme. There were careful, incremental steps to grow the relationships and engage children and families, initially providing transport to the after-school programmes at the Otara Music Arts Centre and a staged process for in-school and after-school tuition. Programme facilitators were proactive in building trust within the community.
54. The schools involved took their own approach to selecting children for the programme. Some schools promoted the programme widely, whereas at least one school only promoted the programme to particular children who they perceived would be well supported by parents. The school who used

a more selective approach indicated they would now rethink this, as over the last year, they have observed unexpected positive changes and transformations in a number of children and now believe Sistema Aotearoa would benefit other children. They acknowledged that their expectations about the potentiality of children have been changed as a result of being involved in Sistema Aotearoa. Given one of the programme's key principles is open access, the selection and promotion of the programme within schools is an area that is worth exploring further.

55. The schools involved in the programme were overwhelmingly positive about the programme; they see the benefits of it:
 - a) for the children involved (e.g. through improved behaviour and concentration)
 - b) for other children in the school (e.g. through new learning and insights about orchestral music)
 - c) for teachers (e.g. through greater engagement with music, and learning about each child's potential outside of the normal curricula).
56. The schools were also enthusiastic about the wider 'spin offs', such as an increased emphasis and focus on music, from the programme within the school, as well as for the wider school community (including whānau), such as greater whānau engagement. All were prepared to continue to support children in their schools having access to the programme.
57. Schools talked about how so many programmes come and go, and that in their view, Sistema Aotearoa is one of the 'good ones'. They see the need for sustained longer term programmes and the benefits of Sistema Aotearoa are sufficiently obvious, especially for the children involved, that the schools would like to see the programme continue.
58. Schools have particularly appreciated the flexibility of the programme around school routines, and do not see it as disruptive. Sistema staff have carefully worked to ensure that they have the least impact as possible on school routines.
59. Teachers are engaged in supporting the kids who are in the programme, and go out of their way to ensure the children get to their sessions, some supporting with transport and walking buses. Some teachers have also benefited from watching how the Sistema facilitators work with the children, with principals encouraging teacher engagement with the programme so that they are able to learn from the Sistema approach and techniques and to integrate these with their own practices and professional development.
60. Families who are still involved are deeply committed to the programme. The relationships between programme staff and family members have grown and it was clear from observations and discussions with programme staff that families are always welcome to observe their children learning. This occurred often during the holiday programme.

Parents were observed to be singing along and joining in on the tutors' instruction, learning, in part, with their children. Parents have also had lots of opportunity to watch the children perform such as at the end-of-programme concert at Telstra Clear centre in Manukau, as well as other special concert performances in the past year, e.g., in March 2012 at the Government House fundraiser concert. These have been particularly noted by parents as wonderful opportunities, that the children would never have experienced if they had not been in the programme.

61. Parents and community members did note, however, that it would be timely for Sistema Aotearoa to have a local concert for the Otara community, as this had not occurred yet. It was seen as important to show their own community what had been going on at Sistema Aotearoa.
62. In this vein it was noted that there was no structural mechanism for parental input and influence into the programme. For example, there is currently no parent representative on the Steering Group, nor is there another mechanism for parental input. This was acknowledged by both the Director and a member of the Steering Group as a worthwhile suggestion. It was recognised that the initial Steering Group was fairly "high powered" and initially concentrated on supporting the programme to get up and running. This was seen as important during the early set up phase, but that it may now be time to further engage parents in greater decision-making roles moving forward. This, we believe, is particularly important if the Sistema Aotearoa programme is to contribute to some of its socially transformative goals such as improving social cohesion, developing wider social networks and improved relationships at home (see programme logic medium- and long-term outcomes in Appendix 3). Continued engagement of the community, in particular the community of parents, will be crucial in this respect, but also in embedding the programme in the community for the long term.

Overall conclusions

63. Sistema Aotearoa is a high performing programme, that is making a difference in the lives of the children and the families participating in the programme. There is promising early evidence of the potential longer term outcomes being realised for the children, their families, as well as the wider community. Given sufficient time and resources, indications are that Sistema Aotearoa will have a long-lasting and transformative influence on the lives of participating children, their families as well as the wider community.
64. The Sistema Aotearoa's trial design, content and delivery stands out as an example of strong formative processes and high quality programme implementation. Committed leadership and capable and expert management have combined to ensure that Sistema Aotearoa captures the key principles of the global Sistema approach, at the same time, skillfully adapting the programme to suit the cultural needs of the local context. Although there are some small areas where improvements can be made, these are mostly known to Sistema governance and

management and are being addressed. We also noted a willingness on the part of Sistema governance, staff and management to engage in the evaluation process in an open and transparent way in order to reflect on their practice and to improve. This bodes well for the future.

2 The Sistema Aotearoa trial programme

65. *Sistema Aotearoa* is based on the El Sistema model, initiated in Venezuela in 1975 and now one of the world's most successful youth development and social transformation movements. Programmes in Venezuela, the USA, England and Scotland serve as evidence of the success of the Sistema model in a range of cultures and countries (Sistema Aotearoa – internal documentation and notes).
66. El Sistema is a graduated system of music instruction for classical orchestral music. The programme has been described as distinctive among mainstream music instruction (such as private tuition) as the programme is immersive with intense programme sessions both in terms of frequency and duration. The programme also builds from collective teaching methods and group-based learning and emphasises the ensemble, as opposed to one-on-one music tuition.
67. Further, the programme is described as generating avenues in which students gain access to classical orchestral music (with free participation and supplied instruments) an area in which there is evidence of inequality of access across socio-economic boundaries further compounding existing social and economic disparities (Hollinger, 2007). The programme is framed as a child and community development programme, as opposed to a musical training programme. Consequently, emphasis is placed on participants' parents and caregivers, school-based staff members and the broader community. Sistema aims to build high levels of organisation, cooperation, commitment and trust among young participants, in a place they can feel safe and challenged.
68. Through working with the child, his or her family and the community in a holistic way over several years of activity, the programme aims to develop capacity and capability within the local community, and in so doing contribute to a multi-layered system of social transformation and cultural development.
69. The *Sistema Aotearoa* pedagogy involves a multi-media environment of musical experiences, such as listening, singing, moving, ensemble playing, performing, musical literacy and instrument making (Sistema Aotearoa Holiday Programme overview, 2011).
70. The stated aims are to:
 - a) address social outcomes of deprivation
 - b) transform the lives of children, families and communities through sustained involvement in a music development programme
 - c) create a core of competent young citizens to be role models and leaders in low socio-economic areas where there is growth potential in social cohesion and employment

- d) identify and leverage resources in the Arts to benefit children, families and communities with inequitable access to those resources
- e) add to the trained talent pool in New Zealand's cultural industries, particularly music (Sistema Aotearoa internal documentation).

Goals of the Otara-based trial of Sistema Aotearoa

71. The stated goals of Sistema Aotearoa are to:
- a) establish a music tuition programme with open access for Otara children and families
 - b) lay the foundation for a fully accessible and sustainable local youth orchestra
 - c) build participating children's confidence, self-esteem and motivation
 - d) build trust, cooperation and respect among participating children
 - e) develop parents'/caregivers' and families' social skills, aspirations for their children's learning and recognition of their abilities and achievements
 - f) grow local, regional and national community support and valuing of the programme
 - g) engage wider community resources and expertise to deliver and support the programme
 - h) employ teachers/musicians and up-skill them to deliver the programme according to Sistema principles and methods.

Sistema Aotearoa trial implementation

72. *Sistema Aotearoa* has been in operation since April 2011. The programme is funded, in most part, by the Ministry for Culture and Heritage, and its delivery is supported by the Auckland Philharmonia Orchestra (APO).
73. It has a formal partnership with Sistema Scotland and is based on the three key Sistema principles:
- a) the programme is free, open and accessible
 - b) the programme is group-based
 - c) the programme is inclusive, flexible and holistic.
74. The programme was introduced to seven Otara primary schools, through an intentional, progressive engagement process, that was aimed to gain the buy-in and trust of schools and of parents.
75. Even though the programme is not a 'school' programme, Sistema Aotearoa began in the schools, in the first term of 2011 with visits to each

school with an instrumentalist and a session leader. These first visits were designed to engage the children with a taste of what Sistema could offer. An information evening for parents followed the visits, and expressions of interest from children interested in participating in the programme were called for. Over 400 expressions of interest were initially received.

76. A holiday programme was held in the April 2011 holidays, and during the second term of 2011, lessons were held, in every school, over eight weeks. The numbers of children participating in these lessons varied across the schools, with one school having their entire Year 2 children engaged in Sistema lessons.
77. Following the mid semester holiday programme of 2011, the first cohort of officially enrolled Sistema Aotearoa participants began weekly lessons with two occurring during school hours, and one after school. Transport to the afterschool lessons was provided in the third term. By the final term of 2011, only one lesson was held in school, with the other two after school, and transport was no longer provided by the programme for those children attending.
78. Some schools continued to provide transport for their children to the after-school lessons and a walking bus was set up in one school.
79. This first cohort of participants completed their first year in the programme in April 2012. The programme is now in its second year of operation, with a second cohort of children beginning in April 2012. The evaluation focused on the first cohort of participants, consisting of 106 children. Almost all of the children were aged between 5 and 8 years and were nearly all from Māori, Samoan, Tongan, Niuean or Cook Islands families.
80. The children participating in Sistema Aotearoa came from seven Otara primary schools – Te Kura Kaupapa Māori o Piripono, Bairds Mainfreight Primary School, East Tamaki Primary School, Rongomai Primary School, Sir Edmund Hillary Collegiate, St Johns the Evangelist School, and Wymondley Primary.

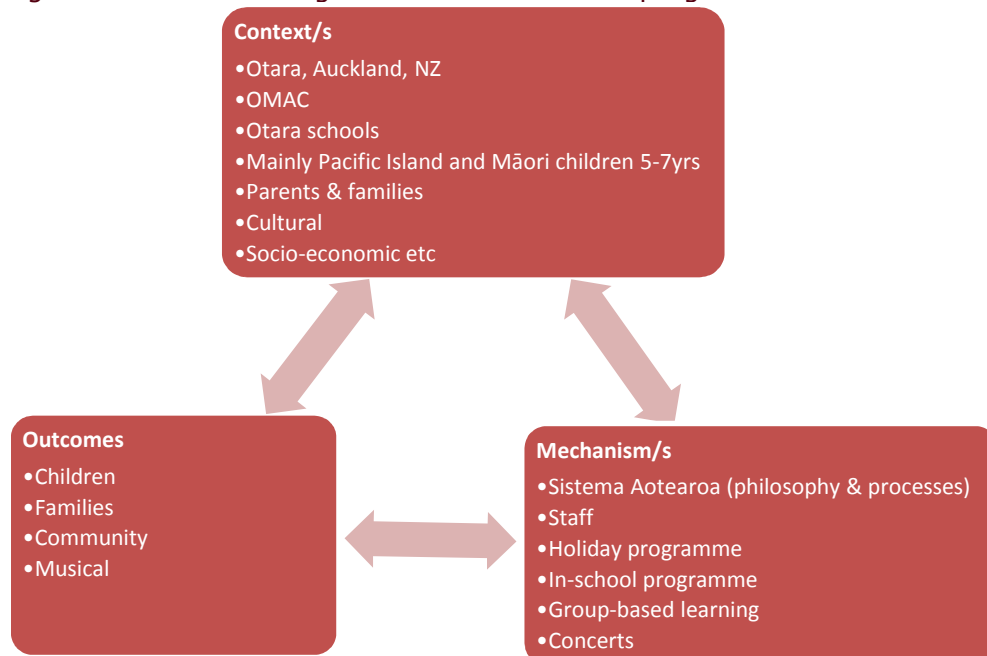
3 Evaluation methodology

81. This section of the report describes the evaluation methodology including description of the processes undertaken to frame the evaluation and to provide an agreed, transparent framework to evaluate the Sistema Aotearoa trial.

Programme logic

82. The research team was concerned not to impose an evaluative framework on the programme, preferring to develop the programme logic, intended outcomes and evaluative criteria with those who have an innate understanding of what works, under what circumstances and in what respects (Pawson, 2006). This approach moves beyond trying to draw linear causations (in the sense that $x + y = z$) from linear processes (inputs>>programme>>outputs>>outcomes) by attempting to understand the context within which a programme is delivered, the mechanisms (processes or actions) that are employed; the combination of which give rise to certain outcomes. This approach allows researchers to move freely between contexts, mechanisms and outcomes in developing meaningful criteria. It also signifies that there is a three-way interaction between a programme, its context/s and outcomes (see Figure 1).

Figure 1: Understanding the Sistema Aotearoa programme



83. A programme logic makes explicit what a programme hopes to achieve through its actions (joining up process and outcome). It explains how the programme works, why it is doing what it is doing, and how this is expected to achieve and contribute to certain outcomes. Sistema

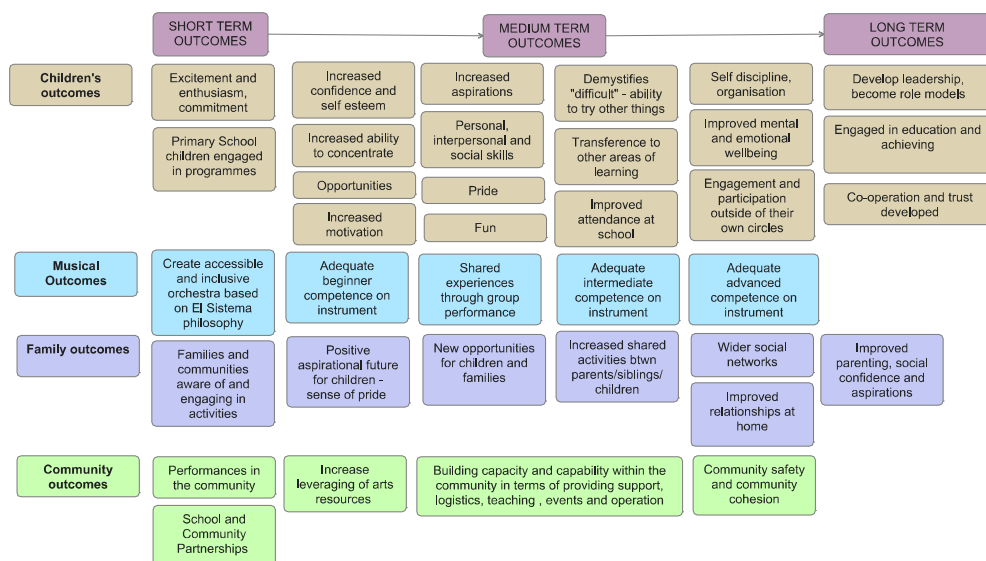
Aotearoa had already developed their programme logic before this evaluation began (see Appendix 2). However the connection between activities (e.g. group-based learning of orchestral instruments) and intended outcomes (e.g. 'build participating children's confidence, self-esteem and motivation') lacked an evidence base and a logic trail (i.e. why we are doing what we are doing).

84. The literature review (including reviews of similar programmes) has gone some way to supporting the Sistema Aotearoa programme logic as has this evaluation. This can and should be further developed as more data is gathered, with ongoing monitoring and evaluation, especially in the fields of transference and long-term social and community outcomes. If this is done it will provide an opportunity for Sistema Aotearoa to develop the world's first substantive long-term evidence-base for the evaluation of group-based musical education programmes as a whole, and the unique features of Sistema Aotearoa in particular.
85. In light of this we recommend that the programme logic be updated to take account of the new evidence and to allow for new evidence to be assembled. In this way the programme logic can develop in line with Sistema Aotearoa's development and the reality of the programme and its effects will become clearer for others.

Outcome model

86. Building on the findings of the literature review and programme logic an outcome model was developed in collaboration with key Sistema Aotearoa staff. This articulates the outcomes that are likely to accrue if Sistema Aotearoa is working as intended.

Figure 2: Sistema Aotearoa outcome model



87. The Sistema Aotearoa programme is an adaptation of an overseas model for Aotearoa / New Zealand. In the early stages of development and

implementation there is real interest in how it is being applied to this new context, what that context brings that may be different from the overseas examples, and what the more immediate as well as longer term outcomes might be for children, families and their communities.

88. The scope of this evaluation is limited to participants who started in the first year (the first cohort). However, it also looks at aspects of governance and delivery that have been in place for longer than the first year. The evaluation is therefore formative and limited to findings associated with the implementation (process evaluation) and any early outcomes that are emerging. The outcome framework implies that, should any of the early or short-term outcomes be evident, this is indicative of the achievement of some of the longer term outcomes in the future.

Development of evaluative criteria

89. In order to learn how good or effective the initial delivery of the Sistema Aotearoa programme was, the evaluation team needed to identify some relevant dimensions for the evaluation of the programme. These are called evaluative criteria (Davidson, 2005) and they represent the list of activities, processes, behaviours or change that one would expect to see if Sistema Aotearoa was working well.
90. The evaluative criteria were developed in consultation with a group of key stakeholders including representatives from:
- a) the Sistema Aotearoa Steering Group
 - b) the Sistema Aotearoa programme – (Director, Facilitator and tutors)
 - c) some of the participating schools (teachers and principals)
 - d) the Otara Local Boards Forum
 - e) the Ministry for Culture and Heritage
 - f) the Ministry of Education
 - g) the Auckland Philharmonia Orchestra (APO).
91. An important aspect of developing the evaluative criteria was determining where the boundaries were – and answering questions such as “what will be the focus of the evaluation, and what is not going to be covered.” The logic model and the literature review provided useful frameworks for thinking about the boundaries and foci of the evaluation.
92. We used evaluative criteria, rather than previously stated goals or objectives of Sistema Aotearoa to accommodate potential variations that might have occurred. For example we wanted to be able to identify any aspects planned that had not taken place, as well as unplanned activities that did take place. This would also enable researchers to discover

unintended effects, processes or outcomes that an 'objectives-based' evaluation might miss.

93. For this study the evaluative criteria were grouped into the following dimensions:
- a) effective content and design for Sistema Aotearoa
 - b) effective programme delivery, i.e., appropriate systems and approaches, human resources, finances and sustainability, and relationships
 - c) outcomes of value to different levels of the community, including for children, for families, for schools, the broader community and the programme overall.
94. These evaluative criteria are articulated in greater detail in Table 3.

Table 3: Evaluative criteria – Sistema Aotearoa evaluation

Dimension	Evaluation criteria
Effective content and design	<ul style="list-style-type: none"> • Group-based learning model that incorporates child development theory and practice • Reflects the community and its cultural diversity in particular Māori and Pacific Island cultures (e.g. informed by cultural forms of teaching and learning) • Collective team-based planning and development • Takes a holistic approach (intentional about transferring a wide range of values, skills and behaviours) • Systematised framework but responsive and flexible • Standardised principles and use of language and processes • Clear progression pathway with practical landmarks and rewards (musical as well as other progression) • Strong alignment and connection with Sistema global network (mentoring relationship during start up) • High levels of community participation (governance) • Highly competent and specialised staff (technical musical, educational, developmental knowledge and skills) oversee programme content and design • Deliberate and intentional inclusion of volunteers in programme model • Takes account of school curriculum / competencies, as well as school routines / systems • Resources – essential workbooks and learning materials available for all children and tutors; equipped website (access to resources), DVD resource for school and family • Child safety and protection policies and procedures in place and accepted by schools, families and community

<p>Effective programme delivery</p>	<p>Systems and approaches</p> <ul style="list-style-type: none"> • The programme is free, open, accessible and inclusive (i.e. it works well for all children including those with a disability) • Collective group learning and experiences underpin the programme delivery • Routined, disciplined, consistent, and structured approach to teaching and learning underpins programme culture • Effective role modeling by all staff (including volunteers) • Positive reinforcement as behaviour management • A safe environment is created for children • Regular access to, and experience of performance classical music • Classical music is demystified for children, families and communities • Children experience a strong sense of belonging to something bigger as well as individual success • All children get something positive out of being involved in the programme <p>Human resources</p> <ul style="list-style-type: none"> • There is a diversity of staff, tutors and volunteers (age, gender, ethnicity, skill levels) • All staff, tutors and volunteers have positive and caring attitudes, are enthusiastic, inspiring, and are culturally aware. • Tutors are confident in their ability to play an instrument • Tutors are skilled in working with large groups and small children • Ongoing professional development for staff and volunteers • Programme staff “know” their community (e.g. know and are able to greet every parent and child on the programme) <p>Finances and sustainability</p> <ul style="list-style-type: none"> • Programme participation is free to families • Multiple streams of funding are secured • Sufficient resources to ensure time and resource is available for strategic planning and future programme development • A collaborative (‘devised’) approach to planning and organisation sustains ongoing adaptiveness. <p>Relationships</p> <ul style="list-style-type: none"> • Introduction of programme is appropriate and effective for its community • Parents and families trust the programme staff to care for and develop their children’s abilities • Parents, families and children understand the programme’s routines and details, as well as how their children can progress • Parents, families and children are strongly committed and engaged to the programme • There are effective relationships between governance (Steering Group) and community/schools/programme staff • The local community is actively involved and contributing to the programme • Engaged and supportive teachers in participating schools • Effective relationships and systems established with school
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	<p>principals and administration</p> <ul style="list-style-type: none"> • The programme flexibly accommodates school contexts • There are worthwhile and valued relationships with formal and informal volunteer pools • There are effective relationships between governance (Steering Group) and programme staff • There is a high level of support from supporting organisation/mentor (APO)
Outcomes of value	<p>Children</p> <ul style="list-style-type: none"> • Children experience a sense of accomplishment and success (including being part of group achievement) • Children are learning values (e.g., respect and care for others), skills (musical, listening, concentration etc), behaviours (e.g., leadership and co-operation) and music abilities (e.g., reading and playing music etc) • Children experience an increase in their self-esteem, confidence and motivation (e.g. to try new things) • Māori and Pacific children experience success in non-traditional ways (breaking the norms) • Families and children are expanding their horizons and their sense of opportunity • The programme makes a contribution to the development of a wide range of competencies (e.g. school curriculum competencies) <p>Families</p> <ul style="list-style-type: none"> • Parents and families are proud of their children's achievements • Children's behaviour at home, and with their families is more positive • Children role model the programme values and behaviours at home <p>Schools</p> <ul style="list-style-type: none"> • The programme contributes to improved school attendance rates among children participating in the programme • The programme contributes to improved engagement and behaviour/social skills, and schoolwork in school among children participating in the programme • Children's improvement in school curriculum / competencies is reported by teachers • Schools report positive changes in teachers' knowledge and practice as a result of their involvement in Sistema Aotearoa <p>Community</p> <ul style="list-style-type: none"> • The community has a sense of pride and ownership in the programme • Communities are positively transformed (e.g. increased community capacity and the bridging of cultural tensions and divides) • The local community has a sense of new opportunities for their children's musical aspirations <p>In relation to the programme</p> <ul style="list-style-type: none"> • Low levels of dropout / high levels of retention in the programme over time • There are development/learning opportunities for local

	<p>volunteers</p> <ul style="list-style-type: none"> • There is evidence of growing recognition by external stakeholders of programme excellence • Programme secures ongoing funding • Programme secures support and funding to expand to other New Zealand / Aotearoa communities • There are development/learning opportunities for local volunteers
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The evaluative rubric

95. An evaluative rubric provides a 'performance guide' against which evaluative judgments about quality and value can be made. Rubrics enable the synthesis of multiple data sources and types of evidence and thus provide a guide for rating how much or how well something was done, or the quality of the performance or implementation (Davidson, 2005). The rubric brings together both qualitative and quantitative data to give one composite rating for each dimension.
96. Table 4 shows the generic rubric used to make judgements in this evaluation. There were several steps in the synthesis process. First, the data was mapped against each of the evaluative criteria. Each criterion had more than one source of data mapped against it, and many criteria had several sources of data mapped against them.
97. Second, for each criterion, data sources were analysed for common themes and/or convergence in order to make an initial judgment on how well the programme appeared to be performing against each criterion. Outlying patterns, themes or differences across the range of data sources were also identified. Judgements were then made as to the evidential base and significance of outlying data to determine if there was sufficient reason to raise or lower ratings.
98. The next step in the synthesis process was to reflect on whether there was sufficient evidence to reach a judgment, and whether important findings have been given appropriate weight. In addition, any differences in interpretation among the evaluation team were discussed and reviewed.
99. A 'sense-making' workshop was held with a group of key Sistema Aotearoa stakeholders during this synthesis process. At this workshop a range of data sources already mapped against some of the evaluative criteria was presented to the group. The group discussed the ratings they would give to each criterion based on the data presented. This workshop served to illustrate part of the synthesis process to key stakeholders, and also served as a moderation exercise for the evaluators.
100. A final rating for each criterion was then determined, and the most critical and relevant findings to be reported for each criterion were identified and agreed upon. The individual criterion ratings were then combined to give an overall rating for each dimension e.g., for content and design, for systems and approaches, for outcomes for children etc.

101. The rating 'insufficient evidence' was included to capture the nature of the programme being at an early implementation stage, distinct from a poor rating where there are serious issues of actual performance. The following table briefly outlines the process used to make those conversions.

Table 4: Evaluative rubric used for the Sistema Aotearoa evaluation

Levels of performance	Performance descriptors
Excellent / exemplary performance	Performance is clearly very strong or exemplary. Any gaps or weaknesses are not significant and are managed effectively.
Strong performance	Performance is generally strong. No significant gaps or weaknesses, and less significant gaps or weaknesses are mostly managed effectively.
Reasonable performance	Performance is reasonable. A few gaps or weaknesses, but none that are considered serious
Performance is barely adequate	Performance is inconsistent. Some gaps or weaknesses. Meets minimum expectations/ requirements
Poor	Performance is unacceptably weak. Does not meet minimum expectations/requirements.
Insufficient evidence	Evidence unavailable or of insufficient quality to determine performance.

Key evaluation questions

102. The evaluation addressed the following key evaluation questions:
- a) To what extent is Sistema Aotearoa's design, content and delivery high quality?
 - b) To what extent, and in what ways, is Sistema Aotearoa contributing to outcomes of value for the children and families of Otara?
 - c) What, if any, other impacts does the programme have?
103. The key evaluation questions were developed by the research team to establish a framework for the evaluation of Sistema Aotearoa. The questions address the high level process and outcomes relevant to the developmental stage of the programme, that is, the quality of its processes around design, content and delivery in the programme's first year, and the extent to which the programme is contributing to outcomes of value as developed and agreed with key stakeholders.
104. Processes and outcomes of value (charted as evaluative criteria) are essentially a set of collaboratively agreed and inclusive criteria developed by the research team and key stakeholders. As they are jointly developed,

they represent the collective views of highly valued and sought-after features in the programme and can be expressed at the lower level (usually around processes) and higher level (usually around outcomes). Thus they can include criteria around a range of topic areas such as quality of relationships, design, delivery and content as well as end-outcome criteria (both short and long term).

105. This allows the people that know the most about the programme and what it is intended to achieve to be part of a process that develops meaningful criteria and evaluative processes. In so doing it sets the basis for developing a culture of ongoing evaluation and continual improvement.
106. Initially the key evaluation question around "outcomes of value" were limited to outcomes for children and families of Otara, however during the development of the criteria, other key outcomes emerged such as outcomes for the programme, for schools and for the community.
107. Thus, emerging themes and the identification of a range of impacts was made possible.

Data collection

108. Given the early stage of programme development, and the need of the evaluative process to conceptually link complex programming issues with wider social and cultural perspectives and systems, and meaningfully make interpretive and evaluative sense of this phenomena, the evaluation drew mostly on different qualitative methods and data (Greene, 2008). The mix of methods used included:
 - a) review of literature
 - b) observation of the holiday programmes
 - c) project documentation review
 - d) an initial meeting with key staff, teachers and the research team to discuss key programme implementation details, and to collate and further develop the 'programme logic' or theory of change
 - e) semi-structured interviews and focus groups with key stakeholders, including;
 - interviews with the Programme Director and Facilitator
 - two parent focus groups (involving 12 parents)
 - a children's focus group (involving 15/73 children from the Year One intake currently still involved in the programme)
 - a tutor focus group (including 12 voluntary and paid tutors)
 - interviews with two principals and four teachers from six of the seven contributing schools. The short time frame for data

collection combined with the demands of schooling contributed to one of the participating schools being unable to participate.

- interview with a representative from the APO
- interview with Steering Group member (also community representative)
- interview with a representative of the Ministry for Culture and Heritage.

Furthermore, the following processes occurred where data was also gathered for the purposes of the evaluation,

- f) a key stakeholder meeting to develop the evaluative criteria (representation detailed previously)
- g) a synthesis workshop with key stakeholders to ensure there was an understanding of the data synthesis process.

109. Potential participants in the focus groups with parents and children were identified largely by the Sistema staff and therefore had the potential to have a bias toward more engaged families. However, the staff endeavored to provide a balanced representation of children and families across schools, ethnicities and ability levels.
110. Semi-structured interview schedules were developed in relation to the evaluative criteria, and relevant sets of questions were chosen from the wider set for different groups and individuals. Questions were asked and topics explored across the range of people involved, in order to capture the views from a number of data sources and stakeholders.
111. Notes, rough transcriptions and recordings were made of all the focus groups and interviews.
112. Focus groups with parents and children included two evaluators with Pacific Island and Māori ethnicity who took the lead in questioning and undertaking activities, as the majority of parents and children were either of Pacific or Māori descent. A third evaluator of Pakeha ethnicity was also involved.
113. The focus group with children was organised as an interactive workshop where games were used to engage children, questions and answers were used in the larger group, as well as a drawing activity with a show and tell exercise. This allowed children to express their views of the programme in a number of ways. The facilitators used informal language such as "Can you tell us what you think is cool about Sistema?" as well as using Pacific and Māori greetings/phrases. The interactive games were particularly useful in making the children feel comfortable with the evaluators.
114. A written consent process was used with all focus groups and interviews with adults.
115. A specific consent process was used with the children, gaining parental written consent as well as undertaking a process with the children

whereby, clear and short explanations were given about participating in the focus group, its purpose, and the option to be able to leave the group and how to do that. The children were given happy and sad/grumpy faces in the form of stickers which they stuck beside their names on a list, to indicate whether they were happy to stay in the group or would rather not participate. All children indicated they were happy to participate.

116. The evaluators' observations of the children in the group also indicated they were happy to participate and were comfortable with the facilitators. All children participated fully in all the activities and discussions. Round the circle sharing assisted with those who were more shy than others, and allowed them to also express their views, if they wished.
117. It was clear that the children showed real support toward each other in this process, in terms of being inclusive and supportive of those who were shy. The process gave real effect to the validity of their feedback and also showed the positive impact the culture of the programme has had on them.

Analysis

118. The evaluation data from each source was mapped against the evaluative criteria using an Excel spreadsheet in which summary data and also verbatim quotes were included. The criteria were structured into three sections; content and design, programme delivery, and outcomes, and listed down the page. The data sources were then mapped across the spreadsheet. Data was analysed for specific feedback round a particular criteria and included under the data source identified. Hence, a range of feedback around most criteria, were obtained.
119. For most of evaluative criteria, there were several data sources from which evaluative judgments could be made, with only a few having insufficient evidence against which to make sound evaluative judgments. The judgements were made using the rubric (or performance guide) in Table 4. Some of these judgements were initially discussed at the synthesis workshop with key stakeholders, using some early data. Judgements were also checked with two of the three evaluators working on the analysis.

Ethics

120. Ethics approval for the evaluation was sought and gained from the Auckland University of Technology Ethics Committee (AUTEC).
121. The Sistema Aotearoa Programme Director Dr Joe Harrop was consulted to develop the evaluation team's understanding of the programme (including programme purpose, goals, activities and components) which subsequently shaped the design of the evaluation.

4 Literature review

Music education

122. Music education is often thought to have transformative powers beyond the simple act of learning music. Early philosophers, such as Aristotle identified music as a vehicle for shaping social values and informing the way in which we understand the world around us (Hollinger, 2006). John Dewey (1934) stated that the “first imitations of a better future are always found in works of art” (p. 346, cited in Foxman, 2008). Music is inextricably linked to community, culture and society, positioning music not as a product of culture or a cultural artefact but as a mechanism through which culture and community are actively negotiated and reflected. Foxman (2008) stated that music generates active negotiation and the creation of values, identities and beliefs thus providing the basis for transformation. Equally, education as a means of individual and community development, achieving social reform, creating inclusion and acting as a tool of liberation is not a new idea (van Niekerk and Salminen, 2008).
123. When considering *education in music*, numerous authors have supported the value and benefits at individual, group and community levels. Bolstad (2011), for example, stated that “many authors consider that the value of music in education has already been established through thousands of years of human history” (vii). More recently the value of music education and investigating the impact and outcomes of music education beyond the direct benefit of developing music related skills has become the subject of increased attention (Schellenberg & Winner, 2011).

Defining ‘music education’

124. The concept of ‘music education’ refers to varied and distinct activities. For example, music education often refers to the integration of musical training into a school-based curriculum. Within the United States of America the concept of “progressive education” popularised by John Dewey in the early 20th century emphasised a holistic educational approach that sought to address child development physically, emotionally, intellectually and spiritually (Galblum, 2010). Subsequent to that greater focus has been placed on the importance of arts education within the schooling context.
125. During the Kennedy and Johnson administrations, the Elementary and Secondary Education Act (1965) was enacted to support the arts in public schools (Galblum, 2010). More recently, however, in the face of diminishing government funding, public schools have struggled to maintain decent and consistent arts programmes (Kartomi, 2008). A 2004 survey of school administrators in the United States found that 25% of participants reported cuts for art education funding, 33% anticipated future cuts and 43% reported decreased time allocated to arts education (Galblum, 2010). Music education has been described as the “curricular

garnish trimmed in the face of budgetary cuts” (Foxman, 2008, p. 6), and dependent on the degree of commitment by the senior management placing it at the “whim of the individuals’ heads” (Odena, 2010, p. 95).

126. This has resulted in music education being ‘privatised’ in a user-pays system, whereby children can pay for music tuition outside of the school-based curricula offerings. This type of music education tends to refer to children undertaking instrument-based instruction (instrumental instruction) and often follows standard ‘conservatory’ methods, with an emphasis on specialised, technically-specific skills, and focuses on musical competence (such as learning to play the piano).
127. There is, however, evidence of inequality in access to music and music education across socio-economic and geographical boundaries making musical training less accessible for families in geographically disadvantaged areas (Hollinger, 2006; Rickard et al., 2012).
128. In Canada, participation in artistic, cultural and recreational activities was found to directly correlate to household income with some families unable to ‘buy’ access to music education for their children (Fix and Sivak, 2008) and access to music education was found to vary systematically by gender and class (Southgate & Roscigno, 2009). Fix and Sivak (2008) argue that this cultural exclusion further compounds existing social and economic exclusion, thus creating further disparity for these groups.
129. Alternatively ‘music education’ programmes can be offered by organisations outside of and distinct from school-based programmes. Galblum (2010) described an increase in symphony orchestras offering education and outreach programmes since the 1970s underlying a motivation to address the gap created by budgetary cuts.
130. In New Zealand there are a number of externally funded music programmes designed to promote music to school-aged children and youth, such as the programmes run by the Tironui Music Trust in Papatoetoe, Auckland. Bolstad (2010) provides further examples of these including “Play it Strange Ukuleles in NZ Schools”, “Smokefree Rockquest” and “Pacifica Beats”.
131. In addition, music has long been part of the compulsory school curriculum. Since 2000 music-sound arts is one of four disciplines comprising The Arts learning area (with dance, drama, and visual arts). Students develop literacies in music as they listen and respond, sing, play instruments, create and improvise, read symbols and notations, record sound and music works, and analyse and appreciate music. This is intended to develop aural and theoretical skills and to value and understand the expressive qualities of music.
132. In Years 1–8, students learn in all four disciplines. In Years 9–10, they study at least two. Students in Years 11–13 may specialise in one or more of the disciplines or undertake study in multimedia and other new technologies. An out-of-hours music scheme provides additional professional tuition to assist children in years 1-8 to further their

education in music. Secondary and area schools have an allowance to enable them to provide tuition in vocal and instrumental music.

Social music education

133. Social music education looks to provide accessibility to music and builds on communal learning (Hollinger, 2006). Social music education argues against the notion that some are 'musically talented' and promotes the idea that all young people are capable of quality music performance (Kartomi, 2008). Compared to conservatory (i.e. skills-based) music education, broader arts education (including social music education) targets a greater range of participants and can offer:

"...a non-traditional, non-institutional, social and emotional environment; a non-judgemental and un-authoritarian model of engagement; and an opportunity to participate in a creative process that involves both structure and freedom. At the same time engagement in the participatory arts requires respect, responsibility, co-operation and collaboration." (Hughes, 2005, p. 11)
134. Within social music education literature there is a range in the depth of social goals from assisting youth participants in their own personal development to endeavouring to create broad societal change and transformation. The latter includes examples of teaching orchestral music in a low socio-economic areas. For example in South Africa using music ensemble participation to engage at-risk youth, the afro-reggae movement in Brazil and music as part of an anti-HIV campaign in Uganda (Foxman, 2008).
135. Other approaches to music education have grown in popularity, particularly those established in the 20th century and developed specifically for group-based learning. These often form the basis for music education in both externally funded music education programmes and some school-based curricula. Examples include the Kodaly, Orff, Dalcroze and Gordon approaches which are based on "group learning, shared musical experience, synchronization, imitation and a range of other socially iterative behaviours" (Overy, 2012, p. 66).

The impact of music education

Individual level impact and outcomes of music education

136. It has often been suggested that musical learning can positively generate learning in other domains (Overy, 2012). When considering the outcomes of arts education the literature predominately falls within two paradigms: the outcome of art education in terms of non-art related outcomes and that specific to the art discipline (Bolstad, 2010). With regards to non-discipline specific outcomes, multiple studies highlight a relationship between music learning and development across several domains including language and literacy, spatial temporal reasoning, achievement in maths, general intelligence and social-emotional competencies

(Forgeard, Winner, Norton, Schlaug, 2008; Overy, 2012). However, empirical studies have generated conflicted findings.

137. The arts education body of literature includes quantitative studies which utilise secondary data to glean associations between music education and related outcomes; quantitative studies which adopt an experimental or quasi experimental approach (mostly using control groups); or qualitative studies that focus on the in-depth impact for children and students (using mostly interviews and focus groups with tutors, teachers, facilitators and students/participants). The majority of empirical work warns against claiming causation (in which music education has direct causal effects in other domains at an individual level), however, recognising "that music learning and teaching can interact with learning and teaching in other domains," a two-way interaction model (Bolstad, 2010, p.21).
138. In understanding the development of skills, abilities and attributes in other domains, it is recognised that a number of other variables may contribute to this development (Bolstad, 2010). The following section explores extant studies and scholarly work which investigate the impact of music education for children at an individual level.

Transference to other domains

139. The basis for understanding the transfer of learning from music education into other facets of child development has been explored in neuroscience literature, which suggests that extensive and active engagement with music can induce cortical reorganisation and generate functional changes in the way in which the brain processes information (Hallam, 2010).
140. Research on western classical adult musicians suggests that sustained and active musical engagement can increase neuronal representation (Hallem, 2010; Moreno, Friesen, Bialystok, 2011). Furthermore, structural differences in the brain have been found in studies which compare adult musicians with non-musicians, particularly for music-related regions of the brain such as sensorimotor, auditory, and multimodal integration areas (Hyde, Lerch, Norton, Forgeard, Winner, Evans, Schlaug, 2009). Overy (2012) stated that "expert instrumental training has now been directly and substantially correlated with neural differences" (p.66).
141. Until recently it was unclear whether structural changes in the brain were a causal product of long-term musical engagement or the product of pre-existing differences (the nature vs. nurture argument). Hyde et al. (2009) sought to address this question through investigating the impact of 15 months musical training on children. This study utilised deformation-based morphometry to measure brain changes longitudinally and found that children with 15 months of keyboard training showed significant structural brain changes when compared to control groups. Recently, Schellenberg and Winner (2011) stated that we "can infer a causal link from music training to brain growth with some confidence" (p. 129).
142. When considering how musical learning can transfer into non-music related domains, literature suggests that the cognitive processes and

neural network normally associated with music making are shared with other mental activities (Moreno, Bialystok, Barac, Schellenberg, Cepeda, & Chau, 2011) and thus the process of learning music may 'transfer' to learning in non-music domains. There is a "widespread view that learning to play a musical instrument in childhood stimulates cognitive development and leads to enhanced skills in a wide variety of areas" (Forgeard, Winner, Norton, Schlaug, 2008, p.1), a phenomenon referred to as 'transfer'.

143. The likelihood of transfer is related to how closely the initial activity (in this case musical education or music making) is related to the transfer domain. 'Near transfer' occurs in cases where musical learning closely resembles the transfer domain and is widely evidenced in literature, particularly the impact of learning music on fine motor skills, melody and rhythmic discrimination. 'Far transfer' refers to the impact of musical learning on non-musical domains, including areas of spatial, verbal, mathematical and general cognitive/ intelligence. Compared to near transfer, far transfer has been recognised to be "notoriously difficult to demonstrate" (Forgeard, Winner, Norton, Schlaug, 2008, p. 1) and extant studies which measure far transfers have generated divergent findings. The Hyde et al. (2009) study mentioned above found that "structural brain changes in motor and auditory areas...were correlated with behavioural improvement on motor and auditory-musical tests... the first longitudinal investigation to directly correlate brain structure and behavioural changes over time in the developing brain" (Hyde et al., 2009, p. 3022). Behavioural improvement in this study, however, referred to near transfer and the authors found less evidence of far transfer.
144. The way in which transfer is measured has been widely critiqued, particularly the dominance of correlational studies and their inability to explore causation with confidence. Nonetheless the existence of physical changes in the brain correlated with musical education suggests there are wider beneficial associations, and as direct linear causation is notoriously difficult to prove, with countless contextual, confounding and extraneous variables to account for, strong correlations are important in improving understanding and practices.
145. A number of experimental and correlational studies have explored the interrelationship between learning music and language skills. Listening to music is argued to provide effective experiences for children to hone their listening skills, exemplified by the 'Mozart effect'. It is proposed that language and music share relevant neural processing mechanisms, utilise similar regions of the brain (Moreno et al., 2011a; Moreno et al., 2011b) and during the early developmental years children may actually mentally process language as a type of music (Degé & Schwarzer, 2011). For example during early years of childhood development the mind must begin to distinguish variation within a category, relating phonemes (the building block of language) to pitch and notes (the building blocks of music). Recent empirical work provides evidence that musical training may lead to superior encoding of linguistic sound, pitch patterns and

verbal memory, during these early years of development (Hille, Gust, Bitz & Krammer, 2011; Hallam, 2010).

146. Gromko (2005) found that kindergarten aged children who participated in music over four months had higher phonemic awareness ("the ability to recognise that a spoken word consists of individual sounds or phonemes", p. 199). This is supported by a study of 41 kindergarten children in Germany, which found that a musical group who received 20 weeks of musical training performed higher than the control group on phonological awareness (Degé & Schwarzer, 2011). A study of the effects of musical training on children aged five to seven found that compared to controls, children with musical training had improved auditory discrimination scores (Schlaug, Norton, Overy and Winner, 2005, cited in Hallam, 2010).
147. Hallam (2010) summarises this body of literature as providing evidence that music training has the capacity to improve children's ability to code and identify speech sounds and patterns. The specific mechanisms underlying the link between music and language, however, remain underspecified (Moreno et al., 2010b).
148. Improved capacity in encoding and identifying speech sounds and patterns and the development of language related skills, is thought to contribute to the development of reading skills (Degé & Schwarzer, 2011; Moreno et al., 2011a). Phonological awareness, in particular, has been associated with reading ability for four to five year old children (Hallam, 2010). A meta-analysis of 24 studies found a reliable relationship between musical instruction and reading (Butzlaff, 2000, cited in Hallam, 2010). Forgeard, Winner, Norton, and Schlaug (2008), for example, found that children who had at least three years of music training outperformed a control group on vocabulary (also on nonverbal reasoning skills). Hille, Gust, Bitz and Kammer (2011) found a correlation between spelling performance and boys who could play a musical instrument, and music training was found to transfer to verbal ability, generating enhanced performance on measures of vocabulary knowledge in a study conducted by Moreno et al. (2011b). Similarly, children aged four to six years old who engaged in four weeks of music training had a larger magnitude of improvement in their ability to map unfamiliar symbols to known words than a visual-art training group (Moreno et al., 2011a). Conversely, a study of 8-10 year olds in the UK, found that a musical group interaction programme did not significantly impact on verbal ability (Rabinowitch, Cross & Burnard, 2012).
149. It is also proposed that there is a strong relationship between mathematics and music, although research investigating the impact of music training on mathematical skills has produced mixed results. While some evidence suggests a correlation between music training and maths, the nature of this relationship, the type of music training involved and the length of time needed to foster positive maths-related outcomes is not well understood (Hallam, 2010). Southgate and Roscigno (2009) found that music involvement was associated with mathematics performance and reading ability for children in kindergarten, however other studies have found little evidence of this effect.

150. A number of studies investigate the interrelationship of music training to intelligence and academic performance, many finding a positive association. Rickard, Appelman, James, Murphy, Gill and Bambrick (2012) stated that the majority of music-education outcome research has focused on gains in intelligence and academic performance. In particular, multiple studies suggest a relationship between the development of spatio-temporal reasoning and music education. A Meta-analysis of 188 studies identified three areas which were characterised by clear causal links (Winner & Hetland, 2000, cited in Bolstad, 2010) including listening to music and spatio-temporal reasoning and learning to play music and spatial reasoning. Music was also found to positively impact memory in a study of four to six year olds who undertook 75 minute music training per week over a 30 week period (Bilhartz, Bruhn & Olson, 2000, cited in Cuesta, 2011). Similarly, Hille, Gust, Bitz and Kammer (2011) provided evidence of higher non-verbal IQ scores for young German boys aged eight to nine who played instruments, compared to their non-musical counterparts.
151. Concerning academic achievement, a number of large scale correlational studies provide evidence of the impact of music education. Again, however, these studies could not find causality and control for a limited set of variables (such as gender and income but not the type of music education). In a study of 25,000 students Cattarall, Chapleau, Iwanaga (1999) found that arts-rich students outperformed arts-poor students on every measure of academic achievement (cited in Fix and Sivak, 2007). Johnson and Memmott (2006, cited in Hallam, 2010) found an association between academic achievement and music training participation in 4739 elementary and middle school students in the United States. Schellenberg (2006) found a positive correlation between the duration of music lessons and school performance, verbal and non-verbal IQ tests. While there is a positive association between musical training and high cognitive ability, the nature and specificity of the link is not clearly understood (Hille, Gust, Bitz & Kammer, 2011). In reflecting on studies which explore this relationship, Schellenberg (2005) summarises: that "these correlational findings extend those of the experimental study by showing that real-world effects of musical training on intellectual abilities are:
- a) larger with longer periods of training,
 - b) long lasting,
 - c) not attributable to obvious confounding variables, and
 - d) distinct from those of non-musical out-of-school activities" (p. 319).
152. The social and personal development outcomes of music training have received less academic attention than intellectual development and achievement (Rickard et al., 2012). Again, the social and personal development outcomes are deemed difficult to measure and tend to be studied through the use of interviews which provide self-reported, subjective and anecdotal evidence.

153. With regards to children, this evidence points to music training as a mechanism for improving self-image, self-awareness, self-control, developing positive self-attitudes (Rickard et al., 2012) and inducing feelings of confidence and motivation (Hallem, 2010). 'While observations such as these provide a valuable indication of the potential for music training to foster social competence and self-esteem there is a lack of empirically based research supporting the benefits outlined, especially for social skills' (Rickard et al., 2012, p.3). Schellenberg's (2006) study of 147 children found no evidence of a correlation between musical training and social skills. In a study of adults, musical training was not associated with difference in emotional intelligence (Schellenberg & Winner, 2011). Conversely, Rickard et al., (2012) cite two studies conducted in the 1990s which provide evidence of musical training and increased self-esteem for children. Rickard et al.'s (2012) study of 210 younger children and 149 older children from 10 schools in Victoria, Australia, found that while participation in a music programme yielded benefit for children's self-esteem, the effect was modest and dissipated during tests conducted in the second year of study. In saying this, children who did not participate in the musical programme reported declining self-esteem (consistent with literature outlining declining self-esteem in the early years of primary school); whereas the music programme appeared in this study to serve as a protection against this.
154. Research on the impact of music education for *youth* (as opposed to children) has generated similar discussions (although characterised by similar methodological limitations). This literature positions art-based education as a mechanism through which youth are engaged in sustained activity, linking music education literature to the burgeoning youth engagement literature. For example, the National Arts and Youth Demonstration Project conducted a three-year study on the impact of art education programmes in Canada. It was found that youth who participated in programmes "demonstrated an improvement in both social and technical skills, increased confidence, improved interpersonal skills, improved conflict resolution and problem-solving skills, and decreased level of conduct problems, emotional problems, anti-social behaviour" (Fix and Sivak, 2008, p. 147).
155. A number of authors examine the link between music education and sense of self. These studies hypothesise that music can effectively allow youth to explore their self-identity and creatively express themselves (Hollinger, 2006; Odena, 2010). Music has been highlighted as providing a mechanism through which music makers can process, adapt and analyse their feelings (van Niekerk and Salminen, 2008). Foxman (2008) theorised that music can create social agency by allowing music makers to use their imagination and self-expression.
156. Participation in music education is also thought to create an intrinsic motivation through allowing students to experience success, develop pride in their own development and thus increase willingness-to-try and willingness-to-learn. Kartomi (2008) found that participation in ensemble training allowed youth to achieve more than they thought possible thus

increasing their own perceptions of competence leading to increased self-belief and confidence.

157. Empirical studies investigating the impact of music education at the individual level are in Appendix 4.

Group and society level impacts of music education

158. Music education literature predominately focuses on individual impacts or outcomes. While a number of academic studies state that they investigate the impact of music education at a group or societal level, there is a tendency to discuss individual-level impacts aggregated to a studied group or community. "Although groups may be studied, within these groups the unit for measurement is still the individual, and there is a focus on identifying growth/change/impacts/outcomes at the level of individuals' life trajectories" (Bolstad, 2010, p.42). This is particularly the case for social music-education programme evaluations, which explore impacts of programmes for individual constituents of targeted groups or the community.
159. Evaluating the community, social and/or economic impacts of music education are methodologically complex. It is recognised that there are empirical and methodological problems in aggregating individual outcomes up to a group or community level. "One of the more vexing issues confronting anyone wishing to understand the impact of the arts on communities is the question of how to link micro-level effects on individuals to the more macro level of the community (Guetzkow, 2002, cited in Bolstad, 2010, p. 43). It is also recognised that substantive community, social or economic impacts take considerable time to generate and often occur outside of the relatively short period of study. Unfortunately, there is a scarcity of longitudinal studies that are able to capture long-term outcomes and, "[T]here is infrequent investment in the kinds of long-term research that many authors suggest is lacking" (Bolstad, 2010, p. 45). At best, a number of studies measure outputs that may in time produce or contribute to community, social or economic outcomes. This has resulted in a body of literature that while pointing to and discussing a number of potential community, social or economic impacts, fails to provide comprehensive empirical evidence.
160. A number of academic articles describe the ways in which music and music education can foster connection, bonds and social capital. Through engaging with other programme participants and tutors, music education is understood to allow the individual to connect to the group, generating a sense of identity and belonging (Hollinger, 2006). An increased sense of belonging enables children to engage with the world around them and connects the individual to their community (Foxman, 2008). Foxman (2008) theorised that community-based exchange (such as community performances) has the capacity to develop a shared consciousness and thus create community solidarity.
161. Odena (2010) explored the capacity of music education to create social cohesion, ameliorate children's negative attitudes and foster positive

intergroup relations between Protestant and Catholic communities in Northern Ireland. Through 14 interviews with school-based staff, the author provided evidence for the 'contact hypothesis' which suggests that cross-community activities can be effective in creating cross-community bonds and reducing intergroup prejudice and hostility. A number of authors also posit that music education (and more broadly arts education) is capable of building social capital. Guetzkow (2002, cited in Bolstad 2010) explained how community arts programmes (not specifically music) can generate social capital by fostering trust between participants. Their subsequent willingness to trust others and increased social networks served to create a sense of community pride and connection to the community.

162. Fix and Sivak (2008) described how the creation of intergroup relations, belonging, and social capital builds stronger communities. A case study of 'The Big Noise' in Scotland found evidence that the programme contributed to community cohesion and pride, with 88% of parents and carers stating that they believed the programme was "changing the way that people living in Raploch think about the area" (Scottish Government Social Research, 2011, p.42). Jones (2010) also found evidence that individuals who participate in the arts (specifically musical choruses) have higher rates of community involvement.
163. "Cultural participation helps connect individuals to the social spaces occupied by others and encourages 'buy in' to institutional rules and shared norms of behaviour" (Kuly, Stewart, Dudley, 2005, cited in Fix and Sivak, 2008, p. 147). It is on this basis that a number of authors describe the capacity of social music education programmes to address problem or illegal behaviour. A number of international reviews investigate the impact of music education for particular community groups including prisoners and youth offenders. For example, a study of a performing arts programme for offenders found that participation in the programme built participants' confidence, positive self-attitudes and increased ability to work collaboratively. These factors in turn provided a pathway for longer term outcomes such as reduced rates of re-offending (Cox & Gelsthorpe, 2008, cited Bolstad, 2010). Similarly, a programme offering orchestral music to a low socio-economic area in South Africa found that participation in the programme corresponded with improved social behaviour and decreased engagement in problem or illegal activity (van Niekerk & Salminen, 2008). A network of music schools in economically disadvantaged areas of Medellin, also sought to counter gang recruitment by developing positive relations and a sense of community inclusion (Odena, 2010).
164. The degree to which music participation can address social inclusion and/or exclusion has also been studied. At this level, however, it is recognised that there is a "relative absence of systematic evaluations of impacts" (Jermyn, 2001, cited in Bolstad, 2010, pg. 42), and studies are vexed by difficulties in defining and measuring social inclusion and/or exclusion. In accordance with the notion that music is a form of cultural praxis (not just a cultural artefact) the provision of equitable access to

music education and equitable access to music making are in and of themselves indicators of social justice and human rights (Kartomi, 2008).

165. Within regards to economic impact, studies tend to not evaluate the economic impact of music education, but rather explore how the creative sector (usually arts more broadly, rather than music specifically) can contribute to local, regional or national economic development. This repositions music as an economic activity or industry, whereby the outcomes are usually measured by direct economic benefits (employment, revenue and spending), indirect economic benefits (spill-over effects, related spending and multiplier effects) and sometimes through provision of 'public-good' benefits (non-financial benefits) (Bolstad, 2010). This approach is supported by evidence that business people believe there is a correlation between the arts and economic development whereby improving the vitality of the arts sector will improve regional economic performance by increasing creativity and innovation (Florida, 2002; Rossi, 2011). Bolstad (2010) describes a number of models which investigate the interrelationships of the outcomes of arts (including both private and public benefit). These models, however, address the arts (not specifically music) and participation not specifically education.
166. In attempting to relate individual level outcomes to macro level outcomes, a number of individual and immediate benefits are highlighted that may in time contribute to broader economic outcomes. For example, "individual difference in verbal and spatial intelligence are strong predictors of achievement in school, the ability to learn in non-school settings, and a variety of other outcomes including productivity at work and health related behaviour" (Moreno et al., 2011b). This is based on the notion of 'life cycle links', whereby there are relationships between the cognitive, social skills, nutrition and health status at a young age and future educational attainment, earnings and employment outcomes" (Cuesta, 2011, p. 18). Early childhood development literature often assesses the impact of participation in early child development programmes on subsequent variables such as employability or educational attainment. However, this type of analysis is seldom performed for music education programmes.
167. One exception is the work of Cuesta, (2011) who calculated the social values of the El Sistema programme in Venezuela based on two unitary benefits: firstly, the impact of the programme on school dropout rates and secondly the impact of the programme on victimisation (theft and injury). Cuesta calculated that the social value of these two benefits to be worth \$259 million (USD), while costing \$154 million. As the study only aggregated the impact of two unitary benefits, excluding potentially other important social and economic impacts such as the impact of the programme on employability and productivity, it is likely that the total economic benefit to society of programmes such as these is far greater.

Impact of the type of musical education

168. Music education literature faces the difficulty of numerous understandings and definitions of 'musical education', 'musical learning' or 'music training'

that are applied inconsistently across studies. The term 'music training' is problematic in that it takes different forms, including the most basic distinction of standard conservatory methods and well-defined pedagogies such as the Kodaly or Suzuki methods (Schellenberg & Winner, 2011).

Overy (2012) argues that while a number of authors state an investigation of 'musical learning', they are in fact referring to 'instrumental instruction'.

169. Retrospective studies, which correlate prior involvement in music with present-day measures (such as testing for grades, IQ, reading ability, etc.) have had limited capacity to control for the type of musical training/education/learning. As the musical training has occurred prior to the period of study, training can include a considerable breadth of training types, and frequently includes instrumental instruction. While a number of studies positively correlate learning to play an instrument with non-musical domains, this form of training has also been associated with a number of negative outcomes for children, such as performance anxiety or physical strain through repetitive exercise (Overy, 2102). Due to the retrospective nature of these studies and an inability to control for different types of musical praxis there is less research that investigates differentiated forms of musical training.
170. On the other hand, experimental studies demand the provision of training (most frequently by the research team), and researchers have tended to opt for studying short-term intensive training modules (Schellenberg & Winner, 2011). While experimental studies have greater capacity to infer causality than retrospective or correlational studies, the type of music training investigated is limited and often shows little resemblance to the type of musical training that children are engaging in, in practice. Further, these studies have been limited in their capacity to investigate different musical learning styles and wider community, social and/or economic outcomes. For example, an experimental study conducted by Moreno, Friesen & Bialystok (2011) utilised a computer-based musical training programme which included training on rhythm, pitch, melody, voice and basic music concepts (such as the staff). While this approach allowed greater control of the children's experience of musical training and enabled the authors to replicate the study in other contexts, this form of musical training differs considerably from instrumental instruction or musical education programmes in practice.
171. Qualitative studies have allowed for in-depth examination of music education as it occurs in practice, but have also been limited in their generalisability. While music education programme evaluations provide qualitative and descriptive evidence of their positive impact, particularly contributing to our understanding of social/personal development outcomes at the individual level, the significance of the effect it is still unclear.
172. These methodological issues are significant in that the type of music education investigated is critical to understanding the impact of music education. "The extent of musical engagement and its nature will be a factor in the extent to which transfer can occur to other areas" (Hallam,

2010, p.270). Changes in the brain and the degree of transferability from music-making to other areas are hypothesised to reflect not only the content of learning, but the way in which the learning occurred. Rhythmic training, for example, was more important to temporal cognition and maths related skills, while pitch and melody related training supports the development of language skills (Hallam, 2010). Koutsoupidou and Hargreaves (2009, cited in Hallam, 2010) also suggested that musical improvisation as opposed to traditional instrumental instruction, has greater capacity to develop creative thinking.

173. Evidence also suggests that the general nature or ethos of the education will affect the type of benefits experienced by participants. In particular whether the education has a competitive, professional ethos with an emphasis on musical excellence (as often found in instrumental instruction) or is characterised by 'fun and play', is considered important in understanding associated outcomes. "The quality of the teaching, the extent to which individuals experience success, whether engaging in a particular type of music can be integrated with existing self-perceptions, and whether overall it is a positive experience will all contribute to whether personal change is beneficial or not" (Hallam, 2010, p. 280).
174. Whether music education is group-based or one-on-one is believed to influence the impact of the music education for participants. In contrast to one-on-one instrumental instruction, musical group interaction (such as ensembles) "entails each player closely listening and getting to know the others performance styles... it implies leading or following the other players as appropriate but never allowing the ego or soloist tendencies to take over, the aim being to learn, communicate and play together with a singular musical voice" (Kartomi, 2008, p. 145).
175. Musical group interaction tends to foster the establishment of social relationships (Hallam, 2010), aligns and joins individuals into states of togetherness, and places children's attention on each other; this in turn fosters the development of social skills such as empathy and respect, and promotes pro-social behaviour. Overy (2012) described the SAME model (shared affective motion experience) which posited that music can generate the synchronisation of neural networks across players (and listeners) which in turn creates social bonding and empathy. Rabinowitch, Cross & Burnard, (2012) provide tentative support for this hypothesis in their quasi-experimental study undertaken with 52 children from primary schools in the UK. They found that children who participated in a musical group interaction programme had increased scores on two of the three empathy tests, while the control group did not. Similarly, Kirschner and Tamasello (2010) found that four-year-old children displayed more cooperative and helpful behaviour following interactive group music making. Kartomi (2008) also found that engagement in ensemble group-based learning positively affected inter-personal communication skills (p. 145).

Music education programmes - learning from practice

176. A stream of the music education literature seeks to explore which music education practices are most effective in seizing positive outcomes for students/participants. This body of literature assumes that music education is inherently beneficial and thus seeks to provide description of the most effective mechanisms for musical learning and engagement (Bolstad, 2010). This literature holds that “we should not ask the question does music have an impact, but rather can specific kinds of musical experience have an impact, and how and when” (Overy, 2012, p. 67).
177. Within this stream of literature, a number of international music education programmes have been evaluated and contribute to understanding effective music education and programme delivery. Frequently these studies have sought to provide an in-depth understanding of the participants’ experience, often measuring the learning outcomes through the analysis of students’ and teachers’ perceptions of the programme. Alternatively, programmes have evaluated whether programmes have achieved their stated objectives or principles. Bolstad (2010) found no published evaluations of New Zealand-based music education programmes (as at the time of publication-2011). Bolstad (2010) however cited four small qualitative studies based in New Zealand which were relatively narrow in focus (rather than broad programme evaluations). These included
- Action research of a primary-school teacher exploring novel techniques for classroom-based music education (Fraser et al., 2007, cited in Bolstad, 2011).
 - An exploration of youth experiences in composing. One study (Thorpe, 2007, cited in Bolstad, 2010) investigated the composition process for three youth rock bands, while the others explored the programme “Compose”; an online programme in which Year 8 students collaboratively compose music for an audio-book (Bolton, 2007 cited in Bolstad, 2010). Bolton described certain ‘authentic outcomes’ that were gained by participants during the composition process.

Generating a positive impact for programme participants

The length of programme

178. The length of a programme is considered to be significant in how programmes engage participants and whether they generate maximum positive impact. Empirical studies that consider the ‘far transfer’ outcomes of music training suggest that programmes of shorter duration are less effective than programmes of longer duration. Rickard et al. (2012) suggest that at least 12 months of musical instruction may be required to reap benefits. That said, there is evidence to suggest that the speed of brain modification is extremely quick. Scholz, Klein, Behrens and

Johansen-Berg (2009, cited in Moreno et al., 2011b) found increases in 'water diffusion' (evidence of brain activity) and connections in several brain areas after only 6 weeks of intensive music training. It should be noted, however, that understanding how structural changes in the brain result in behavioural changes and how music learning impacts on far transfer is still in its infancy.

Age and developmental appropriate activities

179. The underlying basis of the transfer from music education to non-musical domains is related to how closely linked the initial activity is (in this case music making or learning) to the transfer domain (Forgeard, Winner, Norton, Schlaug, 2008). It is suggested that transference can be capitalised upon when programme facilitators leverage participants' prior learning and knowledge when explaining key musical concepts (Smith, 2011). Thus "[M]usical learning is best fostered through age-appropriate activities that include both spontaneous and structured experiences" (Smith, 2011, p. 9). This requires, however, that programme designers and facilitators are aware of each participant's developmental stage. Further, developmental considerations emphasise the use of instruments distinctly different in touch and appearance within a singular programme (Smith, 2011).

Involvement of parents

180. The importance of parental participation in music making during pre-school years has been highlighted in the literature; although it is recognised that maintaining high levels of parental involvement as children move into primary school can be challenging (Kenney, 2011). The Harmony Project, which consists of year-round music lessons and ensemble participation, targets at-risk youth in Los Angeles. Galli (2010) found that a major factor contributing to the success of the programme was the engagement of children, parents, families, community, and partnering organisations (Galli, 2010).

Positive relationships with tutors and facilitators

181. Kartomi, (2008) suggests that to improve individual outcomes programmes need a high degree of mentoring and strong relationships between tutors and participants. Improvement in outcomes is also related to the quality of programme management. Galli, (2010) suggests that music education programmes with high levels of achievement and impact share the characteristic of "intentional relationship building, a strong experienced leader/manager supported by trained and supervised staff" (Galli, 2010, p. 3).

The use of musical group interaction

182. Several studies highlight the impact of participation in music education at a group-level, as related to the interaction of participants with other participants. This form of musical education is hypothesised to contribute

to the development of social relationships creating a sense of togetherness and belonging and in fostering the development of empathy, respect and pro-social behaviour. This was particularly prevalent in programmes that build on group-based learning and interaction, such as orchestral ensembles. Participants in an Australian-based programme (which provides ensemble training in distant rural areas) reported that personal learning came from ensemble group interaction (Kartomi, 2008).

Interactivity

183. Activities that foster group interaction, rather than passive listening, have been found to be more effective in engaging children in music education (Rickard et al., 2012; Smith, 2011). Smith (2011) provided evidence of the effectiveness of interactivity when involving children in orchestral music. This included children being provided opportunities to lead group activities and to receive frequent positive feedback from tutors.

Authentic outcomes of learning

184. As mentioned above, Bolton (2007) found that an effective mechanism of the New Zealand-based initiative 'Compose' (an online composition programme) was that the programme provided an 'authentic outcome' through empowering participants to compose music for an audio book. Participants of a musical ensemble training programme in distant rural areas of Australia reported similar personal learning came from the expectation to achieve and the opportunity to experience high performance pressure through public performance (Kartomi, 2008). Further, Kartomi (2008) deemed a critical success factor of any programme to be the creation of sustainable youth music organisations that have the capacity to continue outside of programme delivery. This, he said, was based on the ongoing provision of authentic learning opportunities, beyond immediate participation in programme activities (Kartomi, 2008).

A fun/playful ethos and approach

185. This approach to music education marks a distinction from 'instrumental instruction' and is based on the notion that children are more engaged and more likely to behave in a creative environment that emphasises fun and play. Smith (2011) states that "singing, cause and effect, drama and role playing, an emphasis on enjoyment over accuracy, and a playful approach are all musically appropriate elements that can and should be used in musical experiences for children" (Smith, 2011, p. 11).

Opportunities to master skills

186. Galli, (2010) suggests that music education programmes with a high level of achievement and a high level of impact often share characteristics including 'a broad array of enrichment opportunities' and 'opportunities for skill-building and mastery' (Galli, 2010, p. 3).

Shared objectives

187. In investigating programmes in Ireland that fostered social cohesion and combatted negative inter-group relations, Odena (2010) recognised that active participation and the provision of shared objectives were critical to fostering co-operative behaviour between participants.

Reflective practice

188. Any community-based programme with broad social goals needs a collaborative action-research approach in which the aims and activities are reviewed through group work and reflection. Within that, teachers and facilitators need time and space to develop an understanding of their own values and paradigms for thinking and acting (Odena, 2010).
189. Smith (2011) outlined a number of guidelines for introducing chamber music to children.¹ These included small class sizes; space to move; a variety of activities; opportunity for input and feedback; musical repertoires that effectively demonstrate key concepts; an attitude of enjoyment, enthusiasm and energy; and an ethos directed towards fun and play.

Cross-cultural music programmes

190. There is evidence specifically addressing the effectiveness of cross-cultural music programmes, whereby participants are learning music styles that they would not normally associate with their own culture. An exploratory study of an orchestra programme in post-apartheid South Africa investigated whether the teaching of classical western orchestral music was further cultural dominance over, and assimilation of, indigenous youth. van Niekerk and Salminen (2008) however, found that the 'cocooning' of culture did not serve to contemporise or develop culture, but rather exposure to 'other' culture "actually awakened and strengthened [participants'] interest in their own culture and heritage...rather than having a deleterious effect on traditional culture" (p. 200).
191. On the other hand in a different context Odena's (2010) exploration of the capacity of cross-community music education in Northern Ireland to foster social cohesion and combat negative inter-group relations found that music teachers and programme facilitators actively avoided selecting musical repertoires or musical activities that had any political overlay. In this case, not exposing programme participants and students to either specifically Protestant or Catholic music was found to de-categorise the individuals and their environments, enabling music education to improve social cohesion, ameliorate children's negative attitudes and foster positive intergroup relations (Odena, 2010).

¹ These were based on children listening to and participating in orchestral concerts, as opposed to music education.

El Sistema movement

192. Demie, Lewis and Rogers (2011) in an interim evaluation of 'In Harmony Sistema England' in Lambeth found that the programme has had a marked effect in a number of areas. For example '...it has raised the children's levels of concentration, their attention, their co-operation skills, their pride and self-esteem making a significant impact on other areas of the [schooling] curriculum, including reading' (p. 89). They also found improved musical skills, improved linkages between the programme and families, schools and the community, and significant positive effects from group-based learning and ensemble performances including a performance for the Mayor of London Boris Johnson. Burns and Bewick (2012) evaluating the 'In Harmony' El Sistema programme in Liverpool found that after three years 'there is no doubt that the evidence gathered to date is demonstrating positive impact on the children, the school, the community and the partners' (p.81).
193. Consistent with a number of the key success factors mentioned above, Majno (2012) investigated the El Sistema movement outlining the key principles that contribute to its success. The author makes a case for the El Sistema movement as the "most important musical initiative of our time" (quote from Sir Simon Ratlle, p. 56), supported by statistics of its growth in participant population and expansion to international contexts. Prior to the programme Venezuela had two orchestras, now Venezuela has over 60 children's orchestras, 200 youth orchestras and 30 professional adult orchestras (Rossi, 2011). The following principles were identified as critical to its success.

Accessibility of the programme

194. The programme fosters non-selective and non-elitist criteria for admission. Of significance is the need to provide a system of outreach for families and parents to overcome cultural, social, or perceptual barriers to participation (Majno, 2012). This has resulted in 67% of the Venezuelan participants coming from the poorest economic and social strata (Cuesta, 2011).

Regularity

195. The programme fosters a sustained pace for learning that embeds the philosophy of discipline and commitment. The author provides evidence of inconsistency in the frequency of programme activities across the international contexts as related to funding and capacity. For example, In Harmony in the UK offers up to seven hours per week, while Sistema Italia allows for a minimum of two hours per week.

Ensemble-based practice, strong teamwork and values

196. Ensemble-based practice and a strong teamwork ethos are embedded in the programmes as opposed to traditional, conservatory derived approaches (Cuesta, 2012). This provides a mechanism through which the programmes communicate key values: "Respect, equality, sharing,

cohesion, teamwork, and above all the enhancement of listening as a major factor in understanding and co-operation" (Majno, 2012, p. 58). The process of creating music together was understood to support processes of integration and inclusion.

197. In pursuit of artistic quality and to reward excellence training is staggered along progressive lines (termed 'sequencing'). Thus the programme provides opportunity to develop artistic quality, receive positive feedback, and for participants to be rewarded for positive performance and progression.

Contextual factors

198. Cuesta, (2012) adds that El Sistema programmes, in particular to the Venezuelan programme, have had considerable growth due to continuous contact between the programmes, their participants and communities of interest. Majno (2012) in outlining a number of El Sistema programmes (both El Sistema inspired and replications of the model with bilateral agreements) across international contexts, proposed that music education programmes should be appropriate to and contextualised by the needs of the local community.
199. In considering the impact of El Sistema in Europe Majno reflected of the expansion of the movement and how programmes varied according to diverse regional contexts. For example:
- widespread in-school training (e.g., the Alto Adige/South Tyrol region),
 - the involvement of children as ambassadors of peace (Pequeñas Huellas in Piedmont),
 - a fully-fledged, established music school renewing its course (Fiesole in Tuscany),
 - expanding youth ensembles (Emilia-Romagna),
 - pilot projects for the disadvantaged (the southern regions and a number of immigration-laden communities),
 - productions aiming for higher artistic results as in the previously mentioned pyramid of increasingly proficient ensembles, with exposure that rewards musical excellence (Future Orchestra in Lombardy).
200. Potential barriers to effective social music education programmes have also been noted to include:
- a) teachers lacking competency and confidence to address community or societal issues (such as being ill equipped to deal with activities that have potential conflict);
 - b) difficulties with resources and funding;
 - c) reluctance of parents to become involved;

- d) a lack of school buy-in; particularly when senior management does not see the value of music education and support is dependent on the 'whim of the individuals' heads' (Odena, 2010, p. 95).

5 Detailed evaluation findings

201. The following section provides more detailed evaluative findings in relation to the outcomes and delivery of Sistema Aotearoa.
202. For each of the agreed evaluative criteria, a summary of the findings from a range of data sources is discussed. The summary tables at the beginning of each section present the evaluative judgement that has been made (using the evaluation rubric) in relation to each of the criteria, as well as for each grouping of criteria.

Outcome evaluation

203. Overall, Sistema Aotearoa has achieved strong performance in terms of the outcomes that are valued for children, families, schools, the community and the programme overall.
204. Table five below provides a summary of the extent to which the outcomes of value for children, families, schools, the community and for the programme overall were found to have been achieved.

Table 5: Summary of evidence – performance of valued outcomes for children, families, schools, community and the programme

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Valued outcomes for children					
Valued outcomes for families					
Valued outcomes for schools					
Valued outcomes for community					
Valued outcomes in relation to the programme					

Valued outcomes for children

Table 6: Summary of evidence – valued outcomes for children

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Children experience a sense of accomplishment and success (including being part of group achievement)					
Children are learning values (e.g., respect and care for others), skills (musical, listening, concentration etc), behaviours (e.g., leadership and co-operation) and music abilities (e.g., reading and playing music etc)					
Children experience an increase in their self-esteem, confidence and motivation (e.g. to try new things)					
Māori and Pacific children experience success in non-traditional ways (breaking the norms)					
Families and children are expanding their horizons and their sense of opportunity					
The programme makes a contribution to the development of a wide range of competencies (e.g. school curriculum competencies)					

Children involved in the programme experience a sense of accomplishment and success (including being part of group achievement)

205. The programme is clearly very strong in its ability to engender a sense of accomplishment and success amongst the children who participate. This is expressed by the children themselves, and observed by their families, the programme tutors and lead facilitator, as well as by the teachers from participating schools.
206. Feedback from the children indicates that most of the children in the programme are excited by their success and accomplishment, and take pride in being part of Sistema. One child said "*Sistema is where all your dreams come true*".
207. All parent respondents felt that their children were experiencing success, and that the experience of being in an orchestra was a highlight for them. Parents also commented that their children were experiencing the sense of 'belonging to something bigger than them'. One parent expressed their child's sense of being part of group achievement by saying, "*I go to Sistema... she has a sense of belonging, not just at school, or at church. She carries that sense of belonging to the programme*".

208. The tutors interviewed noted that the children are able to relate to the tunes being taught to them, and experience accomplishment using them in other settings such as church. Children are able to experience accomplishment, as children, relating with each other in much the same way they would in a natural play environment. A tutor also noted that *"...an orchestra is a great phenomena... kids start regulating each other...the kids just sort it out... it's transformative...they are learning from themselves"*.
209. A lead facilitator on the programme also perceived all the children to be experiencing a sense of accomplishment and success and *"a sense of being valued"*.
210. Likewise, school teachers from the participating schools commented on how Sistema had given some of the children a real sense of being part of something, when they might not otherwise have felt this. This was especially important for those children who for various reasons may not fit in easily with the wider group of children at the school.

Children involved in the programme are learning values (e.g., respect and care for others), skills (musical, listening, concentration etc), behaviours (e.g., leadership and co-operation) and music abilities (e.g., reading and playing music etc)

211. There is clear, widespread and consistent evidence that the programme performs very strongly in this respect. Stakeholders from the Director to the families and the schools all agree that the children involved in the programme are learning positive values, skills and behaviours as well as musical abilities.
212. The programme Director confirmed that it is by design and that the programme is designed so that children learn a range of skills (mental, physical, spiritual, and theoretical (musical)). Mentally, the ability to identify and solve problems, as well as the ability to work under stress is developed. Physically, both fine and larger motor skills are attended to, as is the ability to know your physical space and to engage in disciplined practice. Spiritually the ephemeral, emotional side of music is felt to contribute to the children's development and to become an avenue for expression. In terms of theory, the Director commented, *"... there is the great unspoken mystery and wonder of learning a musical instrument and playing in an ensemble..."*. Through this the Director believes that the children learn to embody the musical experience.
213. A lead facilitator on the programme confirms this, noting in particular the effect these values and behaviours have on children from challenging backgrounds, *"every single child takes on board some of the values / skills, especially those from troubled homes"*. It is also observed that these children often show the biggest positive changes in behaviour and attitude.
214. All parents interviewed commented about the new skills that their children were developing, such as the ability to engage in more independent

learning. Most parents also felt their children were gaining new and positive behaviours and values from Sistema, *"...it's changed her in a way to be more giving"*. These parents also commented on these new skills and behaviours being transferred into other areas of their lives, *"She also plays netball...it's also taught her to turn up to practice, to listen to the coach...it's given her good structure for other things"*. Parents noted with admiration, the speed at which their children had acquired musical skills whilst on the programme, *"...and people ask how long has she been playing? ... and in less than a year... they were amazed, but when children are really focused, it's amazing what they can do..."*.

215. Teachers from participating local schools also commented that the children involved in the programme were transferring the skills they had learned at Sistema into other aspects of their lives, *"...the process does open up into other areas"*. Teachers also commented on how Sistema children appeared to demonstrate genuine caring attitudes to one another, and to a greater degree than other children at the school, *"...there are so many instances....how they care for each other...and they are so proud, they just radiate the proudness...there's been an added on because of Sistema...they just stand tall"*. Teachers also noted increases in maturity and in children's ability to focus, *"It's almost like they have grown up, like they've learnt how to behave, I don't think they would have got that otherwise... and proud..."*
216. The increased ability of children participating to focus, sustain concentration, and pay attention in class even when other children in the class were being noisy was noted by teachers, *"I would say it's helping [child's name] to focus"*. The research team also observed the high levels of focus and concentration during the holiday programme.



217. From the children's perspective, all the child respondents spoke of Sistema as a place where they have fun and are able to make friends, *"I love Sistema because I have fun with my friends"*. Some children were

very clear that they learn new things, musically as well as about learning itself, *"Sistema helps me learn..."*.

218. Tutors on the programme commented on how they saw Sistema giving the children confidence and belief in themselves. They also confirmed that all the children involved were progressing musically, and able to do so at their own rates. The role of the group setting in enabling this musical learning was noted *"...they will pick it up, one of the other students will pass it on..."*.

Children involved in the programme experience an increase in their self-esteem, confidence and motivation (e.g. to try new things)

219. The evidence gathered indicates that the majority of the children involved in the programme do experience an increase in their self-confidence, and that some children also experience increases in self-esteem and motivation.
220. A lead facilitator notes that some children are very self-motivated to seek out skills and learn from other children. Tutors also commented on how they saw the programme giving the children confidence and belief in themselves. In particular, the children's confidence to play music, and to keep trying is felt to be carefully nurtured by the positive, encouraging, and "meaningful praise" given to them by the tutors and staff.
221. Parent feedback indicated that they perceive their children to be gaining confidence, particularly in relation to musical performance. This was perceived by several parents as being important for their child's future, *"It's helped her; given her confidence to stand in front of a big audience and play"*.
222. Feedback from teachers at participating schools indicates that the children involved experienced positive increases in confidence due to being part of something bigger than themselves, *"It's been great for his confidence... something he can do, and be part of. You know how you get that team feeling when you are part of a team?"*
223. Also commented upon by teachers and Sistema staff was the importance of performing in developing self-confidence, *"Performing has really built their confidence, they play violin on their own, their self-confidence improved quite a bit"*.

Māori and Pacific children involved in the programme experience success in non-traditional ways (breaking the norms)

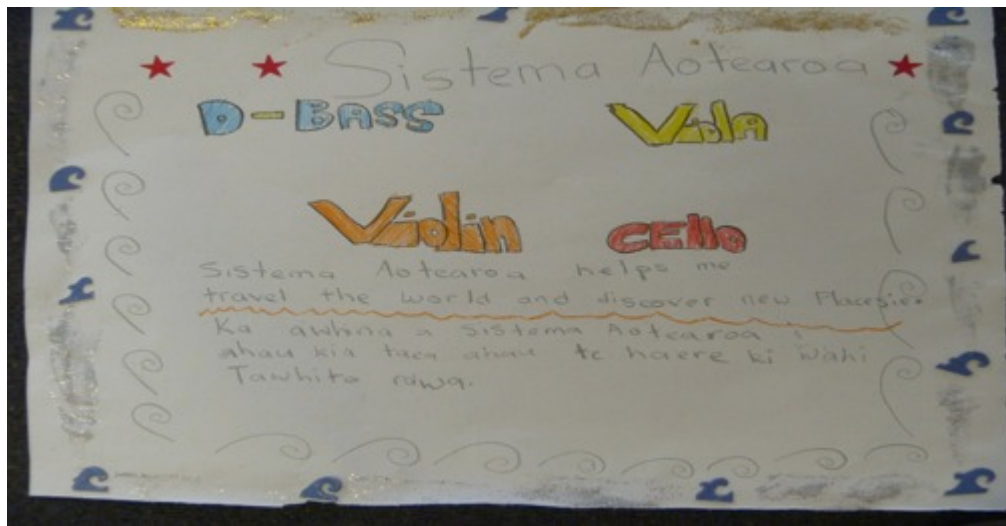
224. The programme appears generally strong in its ability to enable Māori and Pacific children to experience success in non-traditional ways. Feedback from respondents indicated that this was occurring both in the sense that Pacific and Māori children were able to experience success in musical genres not traditionally embraced by their communities, and also in the sense that the programme enabled them to experience success in ways not widely incorporated in traditional mainstream New Zealand teaching and learning situations.

225. Parents of children in the programme spoke about how the programme was a very different choice for them, since classical music would not usually be their first choice. However, many felt that the engagement and learning being experienced by their children was more important than their choice of music. Some parents talked about the Sistema experience as having opened their eyes to a whole new world, and one in which few Pacific or Māori currently participate in, *"...usually only see one brown face there, but it is looking positive for our kids"*.
226. Although the Sistema experience of classical music was clearly a new and different one, parents talked about the opportunities that the programme could provide for Māori and Pacific children. Parents saw that classical music could be an area where Pacific and Māori can excel in the future, *"I'd like to see them, as a whole PI and Māori orchestra. It's not often that you see a PI and Māori orchestra!"*

Families and children involved in the programme are expanding their horizons and their sense of opportunity

227. It is clear from stakeholder feedback that the programme is very effective in expanding the horizons and sense of opportunity of the children and families involved. There is little doubt that those directly involved in the programme have the opportunity to experience things that they would not usually have had the opportunity to do.
228. The programme's Director is confident that the children involved are aware that playing a violin or a cello can take them places that they would not otherwise go. It is believed the programme can open up opportunities for children at an early age, and in a safe, positive environment. The Director notes also that exposure to classical music opens up wider worlds and provides benefits such as early experience learning the languages used in classical music (such as Italian and French).
229. Feedback from children and their families provides strong evidence of the programme's ability to expand horizons and enhance the sense of opportunities available in life for its participants. Several of the children spoke of having dreams of travelling the world, playing internationally, *"Sistema helps me travel around the world and play for all the countries"*. The children also talked about seeing their music having the ability to support their families financially, *"I want to support my family, and my cousins..."*. These children perceived the programme as offering them an opportunity to achieve things that others in their families had not experienced.
230. Almost all parents interviewed spoke of the opportunities that Sistema offers their children, and expressed the view that the programme has enabled opportunities far beyond anything they would have imagined before Sistema, *"It's interesting and completely different from my upbringing...it took us places we wouldn't normally go without this stuff..."*.

231. For many parents, their experience of Sistema has expanded their own horizons, "...we felt so privileged for our children to get the opportunity...When we went to the Auckland University... we were so happy...it was like VIPs... we were saying, let's go overseas...we are now looking to a big future, go overseas and meet other Sistema groups."
232. Tutors on the programme commented in particular on the "opportunity to dream big..." which the programme provides for the children involved. Tutors commented that Sistema gives the children an inner sense of confidence about who they are, in order to become anyone "...if they grow that thing inside them... I am...I am who [I] am, I can be anyone..." One tutor of Pacific Island descent commented on how, when they were growing up, they had no one to 'look up to' like the current programme participants do. The programme was felt to enable experiences quite different to those previous generations of Pacific Island children in New Zealand have been afforded, particularly in the Otara community.



Children's focus group: one child's drawing about what they like about Sistema. Note the verbal description is written in both Te Reo Māori and English.

The programme makes a contribution to the development of a wide range of competencies (e.g. school curriculum competencies)

233. Feedback from parents and teachers indicates that the programme makes a good contribution to the development of wider, school related competencies. Whilst most teachers interviewed perceived certain core competencies (such as 'relating to others') had been developed by the programme, only one school was confident that participation in the programme had had a measurable positive impact on student performance in school.
234. Some teachers from participating schools did comment positively on the alignment between the programme and school competencies. The one school that was confident that the Sistema children's academic progress was above the other children in their year provided records demonstrating that "overall for the 2011 [Sistema] intake, 65% are achieving at or

above the National Standard compared to 40% for the rest of that Year level". This was felt to be a "significant difference". Children participating in the programme were perceived to be more attentive in school, *"For those kids ... it's almost as if they have received an extra dose of wisdom, how to receive things, how to process... I've found it quite exciting, especially the boys.. it's quite mind blowing... to see what they are doing..."*.

235. Given this particularly promising anecdotal evidence aligns with promising findings in the wider literature and other Sistema programmes, it will be important to gather more data over time to qualify this evidence.

Valued outcomes for families

Table 7: Summary of evidence - valued outcomes for families

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Parents and families are proud of their children's achievements					
Children's behaviour at home, and with their families is more positive					
Children role model the programme values and behaviours at home	Insufficient evidence to comment on this criterion				

Parents and families involved in the programme are proud of their children's achievements

236. There is strong evidence in the feedback from programme staff, school teachers, and families themselves, that parents and families are very proud of their children's achievements in the programme.
237. A lead facilitator commented that *"(the) vast majority of their parents are extremely proud of (their children). Not everyone can play violin, they see it's a difficult skill the children are mastering"*.
238. All the programme tutors interviewed believed that the parents and families of Sistema children are very proud of their children's achievements. One tutor reported that *"friends and relatives of the kids...they own it too...when the kids perform...there are parents out there crying..."*. Another tutor reported one particular parent being sufficiently proud and impressed as to want to train to become a teacher

and have the kind of positive impact upon children that he observed the Director and staff having in the programme.

239. Similarly, a school teacher from a participating school expressed the pride witnessed in the parents of children involved in the programme, *"I know the parents were just over the top proud of their kids... Their children have surprised them, they are so proud, and so determined that they are going to keep it up..."*.
240. All the parents who participated in the interviews expressed being proud of their children's achievements, and many can see that music provides a vehicle for their children to achieve ongoing lifelong benefits, *"...it's true that music takes you a long way in life... In reading... In everything"*.
241. Children participating in the programme also noted the pride of parents and wider families in their achievements and participation in Sistema. One child says, *"my Mum says I'm amazing, and my sisters are jealous of me being on TV!"*
242. A representative from the APO spoke of feedback from the community that families are very proud of their children, and that the pursuit of excellence and the high standards set by the programme provide a great deal of pride to both children and families, *"They said it... mana and pride... for their kids... something magical because of its high standard..."* Accomplishment and the experience of excellence in such a demanding discipline give families and children the sense that they can achieve anything.

The behaviour of children involved in the programme is more positive at home and with their families

243. In terms of parent feedback, there were mixed views which indicates that performance of the programme in this respect is developing effectiveness. There may be room for more focused development of the transfer of programme skills to other contexts such as the home, but it may also be too early to judge the extent of the programme's effectiveness for this outcome. There was insufficient evidence to comment further on this other than to note that some parents reported their children being very focused on practising their instruments at home, while others reported that their children reverted to 'normal' behaviour at home (compared to the disciplined behaviour they saw at Sistema).
244. One teacher from a participating school relayed feedback from parents about the eagerness of their children to practise their instrument at home, but no specific feedback was received concerning overall general behaviour.

Children involved in the programme role model the programme values and behaviours at home

245. Among those parents interviewed, few felt that their children necessarily acted any differently at home, although one parent noted changes in her

child's learning, *"I believe it does make changes, at home...especially with her reading and writing of the materials she is given..."*.

246. We consider there was insufficient evidence to comment further on this criterion as well, and believe better judgements could be made when children have been in the programme for longer than a year.

Valued outcomes for schools

Table 8: Summary of evidence – valued outcomes for schools

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
The programme contributes to improved school attendance rates among children participating in the programme	Insufficient evidence to report on this criterion				
The programme contributes to improved engagement and behaviour/social skills, and schoolwork in school among children participating in the programme					
Children's improvement in school curriculum / competencies is reported by teachers					
Schools report positive changes in teachers' knowledge and practice as a result of their involvement in Sistema Aotearoa					

The programme contributes to improved school attendance rates among children participating in the programme

247. The small amount of qualitative feedback on this criterion from schools was equivocal about whether Sistema Aotearoa was contributing to improved attendance rates at school. Schools did not provide the evaluation team with data on participating children's attendance records, and so there is insufficient data to be able to make a judgment on this criterion.

The programme contributes to improved engagement and behaviour/social skills, and schoolwork in school among children participating in the programme

248. Several teachers from participating schools commented on their perceptions of the Sistema children: *"They are more responsible, and more attentive and empathetic, it's like they are part of a journey with a group of children, and they are bringing those skills with them. Because it's becoming more habitual, it's like it's changing who they are"*.

249. However, in our view, there is insufficient evidence to comment further on this criterion.

Children's improvement in school curriculum / competencies is reported by teachers

250. As reported previously, some teachers reported improved development of key school competencies, particularly in terms of 'relating to others'. However, overall there were mixed responses to this question. Some teachers believe strongly that the programme has contributed to participating children achieving and developing in ways they would not otherwise have without Sistema, especially in confidence. One teacher believed these children would show real leadership qualities in the future. Other teachers are more cautious about attributing the changes they see in the children to Sistema alone. This criterion may be better served through gathering quantitative performance data over time in order to avoid the complexities of attribution such as confounding or co-causal variables or the over-emphasis of one factor (for example Sistema) over another (for example teaching praxis).

Schools report positive changes in teachers' knowledge and practice as a result of their involvement in Sistema Aotearoa

251. Performance of the programme in this respect is generally strong, and was commented on by staff both within the programme and within the participating schools. This finding does seem to run counter to the finding above in that teachers noticed opportunities for their own development but were less certain of increased competencies in the children being displayed at school. This may simply reinforce the notion that attribution is difficult to isolate.
252. Tutors on the programme recalled times when teachers from schools have asked Sistema about their teaching approach, as they seem to be achieving things with the children (behaviourally) that teachers struggle with in the classroom.
253. Several school principals have commented on the benefits they saw for their staff, of watching the teaching and learning that happens when Sistema Aotearoa staff are with the children. Certainly, there was a view held by more than one principal that Sistema had opened teachers' eyes to the capabilities of the children involved.

"I think that for some of them it's an eye-opener that the kids have picked it up so well... you are tempted to push them even harder, because they can do it" (Principal).

254. One principal also commented that they felt there is "*probably more music happening in the school*" because of the presence of the Sistema programme, noting that "*the teachers are inspired by it.*"

Valued outcomes for community

Table 9: Summary of evidence – valued outcomes for community

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
The community has a sense of pride and ownership in the programme					
Communities are positively transformed (e.g. increased community capacity and the bridging of cultural tensions and divides)					
The local community has a sense of new opportunities for their children's musical aspirations					

The community has a sense of pride and ownership in the programme

255. There was reasonably good evidence that the programme is well supported by the community and that there is a sense of pride and ownership of the programme by the community. This is a strong result given that the programme is still a trial and that community outcomes would tend to take longer to be realised than individual outcomes.
256. Feedback indicates that the Otara Network Group (a key community group in Otara) supports Sistema Aotearoa and recognises that Sistema is an important opportunity for the children. The CEO of the Otara Local Boards Forum, who also reports back to the Otara Network Group on a regular basis, spoke highly of the programme, indicating that the community was 'behind' the programme and determined to see it succeed.
257. In school and parental feedback pride was a consistent theme. All of the parents expressed a strong sense of pride in the programme, well beyond their immediate families, into their communities and churches *"I like the programme...I tell my family and the Tongan community, come, sign for the programme...it's for music..."*

Communities are positively transformed (e.g. increased community capacity and the bridging of cultural tensions and divides)

258. The evidence we gathered is encouraging regarding the influence that Sistema is having on the community, both in Otara and wider Auckland. However, the evidence wasn't sufficiently robust for us to be confident about our judgement on the programme's performance on this criterion. This we believe will be a function of time.

259. Some feedback from programme staff indicated that many of the cultural tensions in the community, i.e., between different gangs, were able to be bridged in the programme setting. Children from families across the community were described as being able to make friends, and to work together, in ways they could not outside of Sistema. The Sistema environment encourages and supports the children to work together, to see themselves as being part of something bigger than themselves, i.e., part of an orchestral ensemble, and working towards excellence [in performance].
260. Other feedback from the APO, indicated that because of the reach that Sistema Aotearoa has had to other parts of Auckland, through performing, as well as word of mouth, there was a growing awareness, Auckland wide, of the really good things that are going on in Otara. *"It's had an impact across wider Auckland, not just that community...More people know about the good things that are going on in the community, and what's good about the community..."*
261. Partly due to Sistema's influence, feedback from the APO indicated that wider attitudes towards Otara are changing; rather than seeing Otara as a poor community lacking capacity, it is beginning to be seen as an engaged community, brimming with assets, with more people getting to know about the good things that are going on in the community.

The local community has a sense of new opportunities for their children's musical aspirations

262. Our feedback on this criterion was mainly sourced from parents. Wider community feedback was not gathered in relation to this criterion and may simply mean the wording of the criterion needs to change moving forward (eg. replace 'local community' with 'parents').
263. As expressed earlier, many parents were clear that Sistema was a privilege and a huge opportunity for their children, providing them with a musical future and career beyond anything they previously could have imagined. *"...Even the air time, on radio and performances, not many have been to these places...many had never seen a violin in real life... to sit down and watch them play...for them to have that opportunity..."*

Valued outcomes for the programme

Table 10: Summary of evidence – valued outcomes for the programme

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Low levels of dropout / high levels of retention of children in the programme over time					
There is evidence of growing recognition by external stakeholders of programme excellence					
Programme secures on-going funding					
Programme secures support and funding to expand to other New Zealand / Aotearoa communities	Insufficient evidence to report on this criterion				
There are development/learning opportunities for local volunteers					

Low levels of dropout / high levels of retention of children in the programme over time

264. Overall, the programme performs well on this criterion. The Sistema Aotearoa programme began with 106 children enrolled in the after school programme in April 2011. At the end of the first year, 73 children were still enrolled and participating in the programme – a 70% retention rate. Over a third of the withdrawals involved children and families who moved out of the area. There is feedback from the programme and from schools that there is significant transience in the community which is likely to have an effect on Sistema retention rates. Even so, in our view, the retention rate has been strong for a programme of this nature.
265. For example, the Sistema Aotearoa retention rate compares favourably with the Scottish Sistema engagement data, where for the out of school activities, an engagement rate of 65% was achieved (Evaluation of Big Noise, Scotland, 2011, p. 97).
266. It is worth noting that there are varying rates of retention (52% - 85%) across the different participating schools, so some further work on understanding this variability might be worthwhile, to ensure there is a deeper understanding of the how the programme might enhance its retention strategies.

There is evidence of growing recognition by external stakeholders of programme excellence

267. There was some evidence that there is a growing recognition of the programme from external stakeholders, i.e., during the evaluation the

programme received notification that the Owen Glenn Family Foundation was looking at supporting the programme in the future.

268. The programme records indicate that there are a growing number of letters of support and recognition by external stakeholders. Additionally, programme records indicate that donations and other fundraising activities are attracting a small, but steadily growing stream of funding. This implies that the reputation of the programme is, in part, contributing to this.
269. However, we do not consider that there is sufficient evidence to be able to be fully confident about our judgement on this criterion.

Programme secures ongoing funding

270. As mentioned above, there is evidence that the programme is attracting a small, but growing stream of donations and other funding. However, at this stage, there is no evidence to support a judgement that the programme has been successful in securing sufficient ongoing funding to support its continuation. As the programme is still a trial, one would not necessarily expect this to have been achieved at this stage, however the Programme leadership has put some thought into how this might be achieved.

Programme secures support and funding to expand to other New Zealand / Aotearoa communities

271. It is too early, and there is insufficient evidence, to confidently make a judgment about this criterion.

There are development/learning opportunities for local volunteers

272. There was evidence that in the first year, the programme has worked to provide opportunities for local volunteers to develop their skills. For example, one parent / volunteer has transitioned into a paid administrative position, and feedback from programme staff and parents indicated that this role is highly valued.
273. From feedback from the programme director and evidence in the strategic planning documentation, it is clear that there will be opportunities for local parents and volunteers to draw on their musical talents and skills to become tutors in the programme. This is yet to be initiated, and is planned for the next phase of programme development.

Process evaluation findings

274. One of the primary evaluation purposes was to establish, in the first instance, how well the programme implementation and delivery was going. This is commonly called process evaluation. The process focus of the evaluation was expressed in the following evaluation question:
- a) To what extent is Sistema Aotearoa's design, content and delivery high quality?
275. Table eleven provides a summary of the evaluative findings for the process evaluation.
276. It is clear that the programme is performing strongly across most aspects of programme design and delivery.

Table 11: Summary of evidence – process evaluation

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Content and design					
Programme delivery – systems and approaches					
Programme delivery – human resources					
Programme delivery – finances and sustainability					
Programme delivery – relationships					

Content and design

Table 12: Summary of evidence – content and design

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
Group-based learning model that incorporates child development theory and practice					
Reflects the community and its cultural diversity in particular Māori and Pacific Island cultures (e.g. informed by cultural forms of teaching and learning)					
Collective team-based planning and development					
Takes a holistic approach (intentional about transferring a wide range of values, skills and behaviours)					
Systematised framework but responsive and flexible					
Standardised principles and use of language and processes					
Clear progression pathway with practical landmarks and rewards (musical as well as other progression)					
Strong alignment and connection with Sistema global network (mentoring relationship during start up)					
High levels of community participation (Governance)					
Highly competent and specialised staff (technical musical, educational, developmental knowledge and skills) oversee programme content and design					
Deliberate and intentional inclusion of volunteers in programme model					
Takes account of school curriculum / competencies, as well as school routines / systems					
Resources – essential workbooks and learning materials available for all children and tutors; equipped website (access to resources), DVD resource for school and family					
Child safety and protection policies and procedures in place and accepted by schools, families and community					

Content and design

The programme utilises a group-based learning model that incorporates child development theory and practice

277. Founded on a model of the orchestra as a classroom, where children can engage in complex learning processes, the group model underpins the Sistema programme. The commitment to utilising a group-based learning model is apparent from the top down. The director believes that *"group work in an immersive environment"* is one of the founding tenets of Sistema, and to compromise it in any way would effectively cause the programme to "cease to be a Sistema project".
278. Similarly, our observation and interviews with programme staff confirmed that alongside the musical and orchestral grounding of the programme, the programme incorporates child development theory into all that it does, with the aim of *"grasping every learning opportunity there is"* to impart a wide range of values and behaviours, e.g., discipline, concentration, role modelling, good manners etc. One of the most significant practices used in the programme is the role modelling, by all staff, of the behaviours and values that underpin Sistema Aotearoa.
279. Family feedback indicated that the group-based learning model was consistently utilised and all parents in the focus groups agreed they were happy with the group approach in Sistema, *"the group approach works, because the kids are whānau orientated anyway"*. One parent commented on the benefits of learning with their friends, saying *"learning by themselves they get bored, plus with the different cultures they all bring something different to the group"*.
280. From the children's perspective, feedback indicated that group work in Sistema was an enjoyable experience. *"We learn good songs, and you also meet new people and make friends with them and have lots of fun"*.
281. The group-based learning approach was felt by the tutors to be effective for teaching cohesion and teamwork, and several commented on the way they had observed information filtering through the group through peer teaching, *"they will pick it up, one of the other students will pass it on...but all the children get there"*. A tutor also spoke of the way that tutors with less teaching experience pick up effective group teaching techniques from more senior tutors.
282. However, whilst one tutor felt that *"there is this group approach, but they recognise the individuality of every child"*, another suggested that in the groups there also needed to be one-to-one time to ensure less competent learners did not get left behind.

The programme reflects the community and its cultural diversity, in particular Māori and Pacific Island cultures (e.g. informed by cultural forms of teaching and learning)

283. The programme demonstrates developing effectiveness in this area. In employing a group-based teaching and learning approach the programme demonstrates that it reflects the cultural forms of teaching and learning often preferred by the student participants – who have predominantly Pacific Island and Māori cultural backgrounds.
284. The Director affirmed that it was important to uphold the cultural diversity and values in the community, *"because it is 100% Pacific and Māori, there are elements of those cultures that we try to respect"*.
285. It is reported that, as the range of tutors has increased, new Māori tutors have been employed in teaching/tutoring on the programme.
286. Parents comment on the ability of the programme to reflect its community and their cultural backgrounds. Parents talked about the programme content including Māori and Pacific songs and greetings. Parents also discussed the application of musical learning from the programme to family and cultural contexts such as family birthdays, church and other significant events. Staff composition was also felt to reflect the community well too, *"one from England, Scotland...Tongan, Samoan...really awesome to see"*.
287. Tutor feedback indicated that the Otago context called for a particular emphasis on teaching being informed by culture, *"in our particular context, culture is so important to them... there is no way you could remove the community, culture thing from this... it's so important to them...they play in their churches, etc..."* Another tutor noted that *"they can relate to the things we teach them...they sing 'Joyful joyful' at church...they can relate to people who understand culture"*.
288. In relation to programme content, it is apparent that the main body of content is derived from international Sistema programmes, particularly that of Sistema Scotland, but there has clearly been an effort to include some local content. The APO respondent interviewed stated *"I don't know much about the repertoire of their music, but some has been sourced locally, and that's important, and the tutors' diversity is quite wide"*. However one senior staff member on the programme did note that more "local content" should be incorporated, *"we had the intellectual content from Sistema Scotland...our book of tunes is from there...but I was always really insistent that we have a NZ curriculum"*.

The programme utilises collective team-based planning and development

289. Performance in this aspect appears generally strong, however views on this aspect of the programme were only gained from the programme Director and lead facilitator, and an APO representative associated with the programme. According to the programme Director and a lead facilitator, the initial planning and development of the programme's content and design rested largely with them. However, the Director

reports being open to and welcoming of new ideas and innovation by team members on an ongoing basis, *"I'm even happier when people I'm working with bring their ideas...when someone comes up with an idea that goes just as well as anything I can think of"*. In this regard, the APO representative also commended the Director for not bringing preconceived ideas, but being keen to consult with a wide range of people.

The programme takes a holistic approach (intentional about transferring a wide range of values, skills and behaviours)

290. The programme is clearly very strong, and even exemplary, in its ability to intentionally transfer a wide range of values, skills and behaviours to the children involved. This is done in a number of ways including through consistent role-modelling by leadership and tutors.
291. The programme Director believes that Sistema's *"extra-musical elements"* work to empower and develop cooperation, collaboration, problem-solving, working under pressure, working to a shared goal, and relating one's own performance to those of others. According to the Director, Sistema is also felt to contribute to team building, problem solving, improving communication, leadership, mental problem solving, courtesy, politeness, respect, as well as physical skills such as posture, physical awareness, fine and large motor skills. The Director also spoke of the ephemeral and emotional side of music and its effect on one's spiritual state.
292. A programme facilitator noted the programme's holistic approach and that transferring a wide range of skills is a core focus, *"we see it from a whole child approach – everything we do is focused around structuring things to create an environment where we can achieve that"*. A facilitator also described this effect across more than just the students, *"behaviours, discipline, role modelling, concentration, manners, all that goes right across children, parents, community, everybody we deal with."*
293. As evidence of the role modelling of desired communication styles, one parent referred to the Director's manner of speaking and behaving, stating that *"the kids, they follow what he's like"*. Parents reported observing the following as having been developed in Sistema: routine, discipline, patience, confidence, appreciation, a sense of belonging, independent learning, self-confidence, respect, good behaviour, English language development, self-discipline, and goal setting. The transfer of these behaviours to other contexts was also noted by parents, *"I believe it does make changes..."*
294. Tutors on the programme noted their own observations of how the programme was designed to develop politeness and courtesy, respect, confidence and self-belief in the children involved, and that the manner in which this was done was special. *"We are not dealing with it [behavioural issues] in a mainstream way...we are doing it through music and teaching them respect...It's about ... excellence, culturally, emotionally and intellectually."* To the tutors there was little doubt that this was effective.

"you can see who has been in the Sistema programme, just by their behaviour."

295. Similarly, schoolteachers and principals involved with the programme commented on this aspect of the programme. A principal from a participating school spoke of the high standards, the thorough approach, and rules. The principal commended the programme for setting high standards and the children for stepping up and responding to these high expectations and developing self-awareness and self-monitoring skills. The principal commented on the maturity of the children in Sistema, perceiving them to be *"well rounded and developed... They are more responsible, more attentive and empathetic...it's like it's changing who they are"*. Other school staff feedback credited the programme with developing commitment, pride, skills and expertise, friendships, confidence, responsibility, caring, and a range of wider benefits for families.
296. The children's feedback also indicated how the programme and its staff transferred positive values, skills and desirable behaviours *"...and if you do really bad things, then they won't let you join a concert or something... Helps us to make new friends and get along with everyone...Sistema helps me learn."*

The programme has a systematised framework but is responsive and flexible

297. While there were areas identified for improvement, overall the programme's ability to progress students through a systematised framework at a pace best suited to each learner and group was generally good. The Director expressed the belief in enabling learners to reach agreed endpoints through their own learning pathways, *"...you will get all the same learning in many ways"*.
298. The responsiveness of the programme design is also evidenced by its open door policies and flexibility around having parents and siblings present whilst teaching and learning was occurring. Parents valued the transparency of this approach, how it upheld cultural values and engendered trust.
299. One parent noted that she wondered how her girls were learning in a group setting, but noticed they take some groups who are slower, and use a range of games / methods. They also change around often (every half hour) so they get to play with every tutor.
300. Tutors on the programme describe how, while following the Scottish Sistema model, they work to adapt given the number of children enrolled and the space available. They are responsive and flexible with class configurations, teacher/tutor placement, and ability grouping.
301. Schoolteachers interviewed also reported that the programme was very strong in terms of systems, yet able to accommodate student and school needs in a responsive way.

302. There was some comment from respondents, however, about learning still to be gained around working with the diversity of abilities and managing non-cooperative children, and also regarding the ability of the programme to ensure the *"progression of better students"*.

The programme utilises standardised principles and use of language and processes

303. A key part of the programme pedagogy is the intentional use of standardised principles and language, or 'catch phrases' that can be remembered by all the children as well as the tutors. This is essential to the success of group learning. It ensures the children can recall important principles and actions when they go home, and can practise effectively. It also ensures a consistency across a diverse group of tutors and teaching staff.
304. This standardisation of approach was evident in our observations of teaching and performance, and was widely discussed among all programme personnel. We observed an emphasis on consistency of behaviour among the tutors, for example, the modelling of the use of polite language, the use of the same language in terms of greetings, as well as teaching terms (e.g., pinkie finger versus little finger etc).
305. Interviews with tutors and staff confirmed that for the children, this consistency helps establish clear expectations among the children. Schools viewed this standardisation positively, observing that it appears to provide a sense of cohesion among the Sistema team.

I think this is a huge comment on the adults as a group, that they are so united, and ...there is obviously a lot of team talk..." "Dr Joe's group work so well as a team, and reinforce things so well, and deliver the same messages...the children know they are valued, they know they are special...it's just a profound environment to be in.

The programme has a clear progression pathway with practical landmarks and rewards (musical as well as other progression)

306. The programme's lead facilitators state that *"musically there is a clear progression pathway for children - and they are all progressing"*, with one stating that *"we are now exposing them to much more music, and this [in the 2nd year] is the right time to do it"*. The programme also took a progressive, stepped approach to engage children and families. A lead facilitator reported that they *"worked fairly actively to make sure we capture their imagination, make it sustainable, progression from in-schools to after school, then bussed them to OMAC, as we saw this as too big a jump to expect them to turn up at OMAC"*.
307. While few specific details were elicited about day-to-day progression, landmarks and rewards from respondents – the feedback gathered was strongly suggestive of there being in place longer term progression landmarks and rewards. Examples of the carefully planned musical learning progression were clear from observation of the new cohort of children, being given the opportunity for the first time to play on 'real'

instruments. Children begin their learning using wooden bows and instruments, and progress to 'real' instruments when they are able to demonstrate sufficient understanding of some of the basic musical holds as well as care of the instruments.

308. There was also a great deal of ceremony observed when children reached a stage where they were considered ready to take an instrument home. The presentation of the instrument for the children to have, and take home, is an important milestone for the children and their families.
309. A parent, Steering Group members, and staff in the schools involved all mentioned the regular concerts, end of holiday and end of year concert in November, as well as the Government House concert as major landmarks for the children and their families.

The programme has a strong alignment and connection with Sistema global network (mentoring relationship during start up)

310. The alignment with Sistema's global network was apparent in the shared resources utilised from Sistema Scotland and the visits to the programme by Sistema Aotearoa staff early on in the programme's development, and there was also considerable feedback indicating that the linkages to global counterparts is a key part of the programme ethos.
311. The programme Director spoke about global sharing of content, connections with Liverpool, and a keenness from the Sistema Scotland group to see how their curriculum works in another culture. There is an IP sharing agreement with Scotland, but the Director notes *"we have had to change some things culturally wise..."* The Director spoke of his goal for Sistema tutoring roles to be highly sought after in NZ as they are in the UK Sistema.
312. On the other hand, another of the lead facilitators commented that they *"personally haven't gained much"* from global Sistema. They did report however being *"pleased"* that Sistema globally had realised that there was now a Sistema programme operating in New Zealand. This facilitator spoke of wanting to know more about the logistics and details of how things are done in Sistema programmes elsewhere, and wanting to connect better with and get more advice from overseas, but felt that not much seemed to be being initiated by other Sistema programmes. *"I'm interested to know logistics - with more violins out - systems that have worked from storage to database, micro-chipping them...and build up the relationships, look at the long established programmes..."*
313. Two parents made reference to Sistema internationally, they felt it was *"marvellous"* and *"amazing"* that Sistema was brought to Otara. Parents expressed a sense of gratitude that Sistema brought their programme to Otara, and pride that Otara was the first to have *"birthed"* it in New Zealand. A third parent expressed having realised, after a concert, the opportunities presented by being connected to Sistema globally, *"we are now looking to a big future...go overseas and meet other Sistema groups..."*

314. The programme's Steering Group noted that the strongest connection internationally was with Sistema Scotland, which had been observed by members of Sistema Aotearoa, and seemed willing to provide models, materials and advice. It was acknowledged that internationally a wide range of models of Sistema had emerged, and the original Sistema in Venezuela had been very generous about allowing local contexts to shape their own models of Sistema as long as basic principles were followed. The Steering Group felt that in evaluating Sistema in Otara, local criteria for measuring 'success' would need to be created, *"so I think we need to work out our own indicators of the success of this programme...rather than thinking of them as to what extent they replicate the sorts of indicators that would be acceptable in other contexts globally"*.
315. Feedback from the APO representative also indicated that Sistema in different countries was very different but still sought to uphold the ethos, tenets and beliefs of the programme globally. The APO representative spoke of an upcoming visit to Scotland in September, and of how local programme staff had also just been in contact with Sistema in Melbourne and a visit was likely to ensue. It is felt that the Melbourne visit will be good *"collegial support"* for Dr Joe. The international connection was felt to be at the heart of the Director's planning, and the Director was known to have researched it very well. It was stressed, however, that it was important to see that the Director had transformed the international programme to a new, local, and unique form of Sistema within the local context.

The programme has high levels of community participation (governance)

316. Community involvement in the programme is good but with clear areas for improvement apparent. Parents' feedback indicates that they and the wider community are encouraged to (and do) take part in the day-to-day operation of the programme, but no parent reported participation in the governance of the programme. One parent stated *"I sort of thought obligated to volunteer, because we are not putting any money into it, and it turned out to be a job...and I love it here!"* Another parent commented *"I've sometimes popped my head in and asked, but they have everything sussed and prepared...They don't want to burden us...we've done our job to bring the kids to Sistema"*.
317. From the tutors' perspective, most comments were in relation to their own feelings of inclusion into the Otara community and their observation of the *"incredible"* support and willingness of parents to *"help out"*, *"the community has been very positive and welcoming to the programme. The support has been phenomenal"*. One tutor also commented on how widespread they perceived the participation of community members to be *"...it involves many layers of the community, parents, teachers, children, etcetera"*.
318. A Steering Group member spoke of participation by a wide range of community in initial discussions concerning the feasibility of establishing Sistema in Otara, including *"school, parents, local businesses, business networks"*. The Steering Group member maintained that there are

persons on the Steering Group who are of high standing within the Otara community, and believes them to be “community leaders” with the “mandate to be spokesperson for Otara community”. By virtue of these persons’ presence on the Steering Group, it was felt that the “extent of community in governance is very high”.

319. However, the Steering Group respondent also acknowledged that parents of students are not currently involved in or able to sit in on decision-making and “high level” discussions, and that there should be a mechanism in place to enable this to happen. The Steering Group member also acknowledged the need to plan more in collaboration with the community “...it’s probably time to put that out a bit more to the community for their input directly into the planning. Because if you get them in the planning they’ll take ownership of the programme in its fuller sense”.
320. One respondent interviewed commented about the sometimes tough job that the Director has had in translating community issues and needs upwards to the Steering Group. They spoke of observing the Director’s care to ensure there is community input into many aspects of the development of the programme to date.
321. School staff feedback reported parent backing of children, but not of parents’ involvement in programme governance, “these parents go out of their way to just push their children, committed parents doing a good job. The ones in the programme, the parents really appreciate it”. However, the respondent also spoke of their wish that more parents would take up the opportunity.

The programme employs highly competent and specialised staff (technical musical, educational, developmental knowledge and skills) who oversee programme content and design

322. There was clear evidence from parents, children, school principals and staff, programme tutors, Steering Group members and the APO representative interviewed that the programme Director and lead facilitator were held in very high regard. All observed those in these key roles to be highly competent, possessing the specialised musical, technical and educational ability to oversee programme content and design. In addition to this, by virtue of his cultural heritage, the Director was felt to also possess the cultural affinity required to work in the Otara context.
323. A parent noted that all the programme leaders were approachable and knowledgeable and had a “loving nature”. They stated of the Director, “he shows a lot of professionalism in what he does, and he is very respectful of other people’s cultures”. Children participating in the programme stated that “whenever we are stuck on playing something they come and help us...they always make us happy when they play with us during the break. They teach us, help us...”
324. Tutor feedback rated the Director and lead facilitator very highly. One tutor recalled being particularly impressed by a teaching technique used

by the leading facilitator. She was felt to be *"a fantastic member of our team"*, and *"really experienced"*.

325. A Steering Group representative commends the Director as having *"excellent competency"*, possessing passion, international experience, and cultural affinity.
326. Another stated that the programme Director *"knows what works with these kids...I think he can talk with quite a bit of authority"*. The representative also acknowledged the training that the programme's tutors undergo, but also drew attention to some tutor turnover and the need to train more tutors, *"There's no doubt...it's top of the scale...it's the quality of the staff, the rigor of the planning, the level of community interaction, and amount of support from the families"*.
327. School principals and staff feedback indicates that Sistema staff and musicians are also perceived as highly professional no matter what situation they face. It was felt that tutors look for the positive in all the children, along with areas to correct and develop, *"the musicians are just so professional...they are so into what they are doing...the children just catch that"*. Programme staff were acknowledged as *"really good teachers ... very good, very experienced"*, demonstrating good class control, student engagement, group work and interactive teaching styles.
328. The Director's own response indicates the use of both musical and educational theory and knowledge to enhance programme design. *"When you are working in an environment like Sistema, you are able to impart certain bits of knowledge that stick in the brain...I think it's because we are doing something physical and mental at the same time, and there's so much learning going on..."*
329. The lead facilitator expressed a view that the teaching staff on the programme are very effective at modelling the programme system and values. The facilitator also commented that teaching staff have the necessary specialised musical expertise but do vary greatly in cultural and pedagogical expertise. Hence, staff training and capacity building is crucial.

There is deliberate and intentional inclusion of volunteers in the programme model

330. There is generally very good performance by the programme in deliberately and intentionally including volunteers in the programme model for a variety of roles and functions.
331. Parent feedback indicates a good core of parents who are actively involved in all aspects of 'behind the scenes' day-to-day operating of the programme, *"when they go on their trips...I usually go."* However, the programme's lead facilitator has expressed the desire to involve more parents in the musical side of the programme, as tutors.
332. The Steering Group representative also confirmed parental support. *"Main support is the whānau of those kids - you can call them volunteers ..."*

greatest resource in any programme is people, not just the parents, the aunties, uncles, come along and do cups of tea, behind the scenes stuff...I think there is a definite intention to build the numbers and kinds of volunteers..."

The programme takes account of school curriculum / competencies, as well as school routines / systems

333. The programme clearly takes into account the routines of local schools, with programme dates and times arranged around school hours and term times and holidays. There was evidence from Sistema staff and schools that the programme tries hard to fit in with school systems and routines. The extent to which the programme is aligned to school curriculum and competencies was less clearly evidenced, with only the programme Director and one participating school staff member specifically referring to this aspect in any detail.
334. Two parents spoke of the way the programme was fitted into and around school hours, terms and routines. Similarly, one tutor mentioned liking how the *"holiday programme continues on during school terms"*, and saw this as evidence of the school and community's commitment to the programme. A lead programme facilitator also spoke about fitting in with school routines.
335. The Steering Group representative expressed that school involvement had been *"absolutely vital"*, whilst one of the school principals spoken to noted what was in effect a reverse effect, whereby Sistema practices were impacting positively on school practices, *"there is probably more music happening in the school because of it...the teachers are inspired by it"*. A school principal also noted the programme's disciplined approach and how programme staff have exercised protocols to ensure they are unobtrusive and that they accommodate school routines. Their ability to do so and follow protocols was felt to be *"almost excessive"*, but definitely paying off, *"they want to be as unobtrusive as possible, and they just really hit the mark, quietly go about their business..."*
336. The programme Director referred to how fitting the programme around school terms and dates had involved reconfiguring the programme to fit the local context. The Director did also speak about the inclusion of Māori songs from the New Zealand school curriculum into the Sistema programme. Like the school Principal, the programme's Director also mentioned the reverse impact of Sistema curriculum on schools, *"and we've got schools ... saying come and talk to us about your methods...that's cool"*. The Director's focus was clearly on the operation of Sistema to standards of excellence, with a belief that this would flow into school success, *"I'm not worried about NCEA, or primary school education...what I'm trying to do is give kids the best Sistema experience I can..."*
337. The clearest indication of alignment with school competencies was gained from a school staff member interviewed, who felt that the programme was able to enhance the following school competencies: thinking skills,

using language, managing self, relating to others, participating and contributing. This respondent also spoke of how students have to occasionally leave during school hours to take part in concerts, but noted that teachers at their school were happy for this to happen because of the perceived wider benefits of the programme for those children.

The programme has resources – essential workbooks and learning materials available for all children and tutors; equipped website (access to resources), DVD resource for school and family

338. Feedback indicated that the programme was highly effective in making resources available for use by the children for their learning in the programme. Resources were also made available to ease the burden on parents and to meet student needs (such as buses) and to demonstrate cultural values (such as through serving refreshments during lessons). The provision of resources was particularly noted by the parents, tutors, and participating schools' principals and staff.
339. One parent referred to the "*reading and writing*" that their child undertook on the materials they were given at Sistema. Other parents referred to the "*games, or the cards*", worksheets with "*puzzle and labels*", and that "*...they have their violins here...*".
340. Tutor feedback indicated that "*having real instruments*" was considered a "*huge*" bonus, and that if it were possible to have more "*that would be great*". They noted that instruments purchased from China looked and sounded good. They also mentioned 30 violins having been recently donated, and programme workbooks, "*the workbook of tunes that we use are the IP of Sistema Scotland...and then we have augmented that with some local content*". However, several tutors also felt the need for a new location or a different, more appropriate location for the programme in the near future. More funding was also felt to be needed, and more good people too, "*our best resources are the people*".
341. One Principal noted the resources provided both by the programme, and those in the schools also made available to support the students involved, "*Like today, there's something special going on...whatever the kids need, they get*". Another senior school staff member spoke of the resources the programme provides to ease the burden on parents, "*There was a bus there...they think of things like that...*"
342. It was also noted by one Principal that in their school, they actively try to support the other children in the school to develop an understanding of the musical experience that the Sistema children are having, "*we have interactive whiteboards, so that we can Google things - like orchestra - and show the other kids*".

The programme has child safety and protection policies and procedures in place, and schools, families and community accept these

343. The programme appears to have generally strong procedures in place to ensure child safety and protection, and these were easily accepted by all

involved. One parent particularly commended the programme, saying "*I know I can trust Sistema with my daughter, I never worry about her...they are like a family...even when they go on their trips...they look after the kids, they don't release them*". They also noted that "*when the kids are feeling sick...we have to write it down in the book...it is safe.*"

344. A lead facilitator reflected on how sessions "*...often started off with 40 parents around the hall*", explaining that this was "*very necessary because that's what gave them the trust*". The facilitator believes it is a fortunate feature of the Otara community that parents and other caregivers will often transport several children to and from the programme. She notes that if one child is not picked up they will be taken home by another family or a Sistema staff member, as the participants are part of a close-knit community.
345. Children appear to feel safe and happy on a number of levels (both physical and emotional) in the programme. One child stated "*I feel quite safe...I'm shy and I'm not shy*".
346. Evaluators while observing the programme noted a consistent checking-in and checking-out process for all children and visitors.

Programme delivery: Systems and approaches

Table 13: Summary of evidence – programme delivery – systems and approaches

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
The programme is free, open, accessible and inclusive (i.e. it works well for all children including those with a disability)					
Collective group learning and experiences underpin the programme delivery					
Routined, disciplined, consistent, and structured approach to teaching and learning underpins programme culture					
Effective role modelling by all staff (including volunteers)					
Positive reinforcement as behaviour management					
A safe environment is created for children					
Regular access to, and experience of performance classical music					
Classical music is demystified for children, families and communities					
Children experience a strong sense of belonging to something bigger as well as individual success					
All children get something positive out of being involved in the programme					

The programme is free, open, accessible and inclusive (i.e. it works well for all children including those with a disability)

347. The programme is currently free to all those children participating. All children who show an interest and commitment are welcome on the programme from the participating schools, regardless of ability. Most schools had an open door to the programme however, one school handpicked the children to attend based on the teacher's view of which children would benefit, and which parents would support the children to the holiday programme, *"I choose children I think will cope with the programme."* In hindsight, this teacher stated she would expose more children to the programme next year.
348. The children accessing the programme are from many different cultures, and feedback from parents indicates that the children and families feel the programme staff value their cultures. *"They seem to be able to use different languages. Dr Joe greets people in different languages... even their theme song... they (the children) get to know other languages."*

"It's really proud for me to see Pacific Island children singing Māori songs... in the theme song."

349. There was clear evidence from all stakeholders, particularly parents and schools, that a no cost programme is important to ensuring children's participation in the programme, as many of the families have limited financial resources. *"When I saw it was free...something to put my children into... We don't go out a lot, because it costs a lot."*
350. Many parents noted having Sistema based locally was important for accessibility, *"it's easy, most of us live just down the road, it's achievable programme for our children."*
351. Although the programme is free in a financial sense, and staff have worked hard to ensure it is accessible and inclusive, it was clear from the feedback from schools that participation requires a great deal of commitment by parents and families, *"they couldn't have paid money, but they can give time."*
352. Many stakeholders talked of the considerable commitment of time and effort required, and being made, by the children's families to ensure they get the most from the Sistema Aotearoa opportunity, *"our children are very lucky and privileged to have these free programmes."*
353. Some evidence also emerged that in order to foster engagement by schools in the programme, free entry played an important role. For a programme that is unusual, and is not well understood by principals and teachers, free access provides them with an additional incentive to participate, given there are many opportunities that schools can choose for their children to participate in.
354. Some feedback also indicates that the programme works to accommodate all levels of ability, although there are emerging challenges for the programme to cater for those who are learning at a slower rate, as well as those who are excelling.
355. There was also clear evidence that the programme has effectively provided for children with disabilities and learning needs. These children are fully participating members of learning groups and performances.

Collective group learning and experiences underpin the programme delivery

356. There was strong evidence that underpinning the programme is a group-based teaching and learning approach that is grounded in a body of theory and knowledge about playing and performing as an ensemble.
357. Feedback from tutors and schools talked about the benefits for the children of this approach, including children learning about cohesion and teamwork, learning respect for each other, for the teacher, for the instrument, learning discipline.

"An orchestra is a group phenomenon... and what happens is that the kids start regulating each other... and the kids just sort it out..It's transformative... and they are learning from themselves."

"So the group model is superb, because you learn so much from one another, there is so much going on than just the music."

358. This group-based approach also resonates strongly with the children's families, i.e., for them they saw it as a whānau orientated approach to learning, one that they and their children are able to strongly identify with.
359. Feedback from teachers confirmed this group learning approach as one that aligns with the children's other experiences such as dance and singing, and is *"a great way they do learn."*

Routined, disciplined, consistent, and structured approach to teaching and learning underpins programme culture

360. Stakeholders consistently commented on the very structured and disciplined approach that is taken by the programme to teaching and learning. They saw this as one of the programme's positive and distinguishing features.
361. Most of the parents were clear that the programme is well run and well managed. They all commented on how much they appreciated the mix of fun with discipline, *"the tutors make it fun for the kids... Dr Joe, he's really got control of them...the children are so well behaved, they have a lot of respect for them."*
362. Teachers and Principals reported the programme was well structured and delivered, *"(you) wouldn't know it hasn't been going a long time, would think it is well established."*
363. The Aotearoa / New Zealand programme draws from the systems and structures of Sistema Internationally. The evaluators saw detailed and structured documentation, which set out the teaching and learning modules developed specifically for New Zealand.
364. Stakeholders talked about the cohesive and consistent way in which all the Sistema staff and tutors operate, and we observed a range of tutors all modelling planned 'Sistema' ways of speaking, teaching and interacting with the children.

Effective role modelling by all staff (including volunteers)

365. There was strong evidence that positive role modelling is a key component of the Sistema Aotearoa programme approach.
366. Schools commented on the positive, yet firm way in which Sistema tutors and staff interact and engage children, *"really good teachers...good control of the children, get them involved...very interactive style"* (School feedback). They noted that their teachers looked forward to Sistema sessions, as they gained new knowledge about ways of engaging with and managing children.
367. Tutors also strongly agreed that role modelling was a key part of the methodology, and that they have been trained well in this aspect,

"leading by showing." They also noted that Sistema role modelling was being noticed by schools, *"...even teachers have come to us asking for tips on how to model."*

Positive reinforcement as behaviour management

368. There was strong evidence from a number of sources that positive reinforcement underpins the behavioural management approach being used in Sistema Aotearoa. The programme leadership has worked to ensure that all Sistema staff and tutors use positive behavioural management techniques consistently, whenever they are engaging with the children.
369. The tutors talked about how through the Sistema training they had learned to use positive reinforcement techniques and positive praise for behaviour management. There was considerable feedback from tutors about how much this positive approach to teaching had influenced their own teaching, group work with children and leadership, *"My teaching skills have had a really big overhaul."*
370. Feedback from a range of sources indicated that a number of Sistema children present with a range of life and behavioural difficulties. Through their experience in the programme, where they experience feeling valued, being praised, and where positive behaviour is reinforced, there are some quite big shifts in children's behaviour over time.
371. There was, however, some feedback that Sistema still finds it somewhat challenging dealing with non-cooperative or more difficult behaviour. Sistema Aotearoa is seeking advice as to how other Sistema programmes deal with this issue.

A safe environment is created for children

372. There was clear evidence that the Sistema environment is considered safe for the children. For example, schools commented that they had a sense of security about the safety of the children because of the professionalism and care shown by Sistema staff.
373. Parents also felt strongly that they could trust the Sistema staff, *"I can trust Sistema group with my daughter, I never worry about her. They are like family."*
374. The evaluation team observed that there are robust systems in place at OMAC to ensure the children are safe on the premises, and also when the children are travelling or performing elsewhere.

Regular access to, and experience of performance classical music

375. There is clear evidence that the children are exposed to and experience a range of classical performance opportunities. Built into the programme are opportunities for the children to observe experienced musicians playing classical instruments. There have also been a range of visiting musicians to the programme. The programme regularly also holds

concerts, where the children perform for parents and wider whānau, e.g., as the end of a holiday programme.

376. Many stakeholders, including teachers, parents, and staff also talked of the children performing at school, at home, in church, as well as in public and community events and places, such as Government House and the Telstra Clear Pacific Events Centre. The children, parents and teachers spoke of the value this performance opportunity represents for them, *"it feels like we are a real orchestra."* (child)

"Children enjoy it, especially concerts. They feel different, know they're different" (teacher)

377. For parents and children, having access to these opportunities is much more than a musical experience, it provides the children and their families with opportunities to have new and different experiences. Many of these families have never had access to classical music before, *"it took us to places we wouldn't normally go... We wouldn't normally be taken to places like that."*

Classical music is demystified for children, families and communities

378. There was a wide range of evidence that indicated Sistema has opened the eyes of participating children, their families and to a lesser extent, the community to classical music.
379. Some parents noted that classical music was very different from what they and their families were used to. Being a part of Sistema has exposed them to new types of music and new instruments. For some families, this has been a culturally challenging experience, balancing their usual musical experiences with the introduction of classical music into their homes, *"we have challenges in our house.. this is real music.. no that's not real music... real challenges for us as a whānau."*
380. For some families and children, we heard that they have come to realise the wider applications and uses of classical music, for example, its role and importance for movie and television musical scores. One parent talked about her daughter now wanting to play music *"in the movies"*. The children themselves talked about how they now recognise that classical music is a possible career goal and profession *"In five years, I imagine I will be the best cellist."*
381. Schools also commented on the extent to which Sistema was demystifying classical music, not just for the Sistema children, but for the wider school. Teachers in the school draw on the Sistema children's experiences to widen the other children's exposure to classical music and instruments, *"it opens their eyes to other instruments as well (not just the ukelele)."* (School feedback).
382. Several teachers commented on how the Sistema programme is *"breaking the norm,"* *"Sistema has turned the beat into a serious side of music which they don't get. We could have the best violinist in sitting in our school. They don't get to play instruments apart from guitar."*

Children experience a strong sense of belonging to something bigger as well as individual success

383. There was a good range of evidence that indicated the children (and their families) are developing a strong sense of their own success, as well as how they contribute and belong to something much bigger than themselves, i.e., an orchestra.
384. Some of the children expressed their wonder at being part of a group, that is able to create an orchestral sound. For these children, they are learning about what it means to be a member of a group, contributing to a greater purpose, *"it feels like we are only one person in the orchestra."*
385. One tutor noted, *"the focus is not about what I have... It's about being someone... It's about doing things... If they grow that inside them... I am who I am... I can be anyone..."* One grandparent also told a tutor, *"I said to (child's name)... 'you have your violin, you just focus on that... don't you worry about anything else'..."*

All children get something positive out of being involved in the programme

386. There is strong evidence by all stakeholder groups interviewed that all children involved in the Sistema programme are gaining positive benefits from being involved in the programme; we heard of increased *"confidence"* coming from the *"amazing opportunity"* that Sistema Aotearoa was for their children. Other benefits noted included self-management, respect, routine, discipline, patience, appreciation, commitment and self-belief.
387. Relationships with other people the children would not normally meet, opportunities to learn a new instrument and perform together were also noted. The benefits of learning an instrument for the children's development, including brain development, was also noted by staff and tutors.

Human resources

Table 14: Summary of evidence – human resources

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent / Exemplary performance
Overall rating					
There is a diversity of staff, tutors and volunteers (age, gender, ethnicity, skill levels)					
All staff, tutors and volunteers have positive and caring attitudes, are enthusiastic, inspiring.					
All staff are culturally aware.					
Tutors are confident in their ability to play an instrument					
Tutors are skilled in working with large groups and small children					
On-going professional development for staff and volunteers					
Programme staff “know” their community (e.g. know and are able to greet every parent and child on the programme)					

There is a diversity of staff, tutors and volunteers (age, gender, ethnicity, skill levels)

388. There was strong evidence in programme documentation, and observed by the evaluators, that indicated there is a good mix of age, gender, teaching and musical skill level, and a growing ethnic diversity within the complement of Sistema Aotearoa staff.



All staff, tutors and volunteers have positive and caring attitudes, are enthusiastic, inspiring, and are culturally aware

389. There is strong evidence across all stakeholder groups that the staff are caring and friendly, and fantastic in working with children, *"Brilliant, fantastic, in working with children – don't need me to intervene, can tell from the children's responses they feel at ease, more behaved."*
- "They have a loving nature about them."*
390. The children and the tutors know each others' names well, and the children noted that tutors would help them when they were stuck, and play with them during the break indicating this was important to the children, *"They always made us happy when they play with us during the break."* Many talked about how inspiring the key facilitators were.
391. There was some evidence that the staff and tutors are somewhat culturally aware, and receive some training on this aspect, but this area could be developed more. It was noted that the key facilitators were relied on much more for this aspect, *"a lot of the cultural load is on the director and lead facilitator."*
- "Staff are aware of their level of cultural awareness. Those who are white middle class are aware of that. They seek and are provided guidance from the facilitators."*
392. Tutors talked about the range of cultural experiences they have had i.e., some not having experienced mixing with other cultures to others who had experience mixing with a large range of cultures. For some tutors, the experience of working with Sistema Aotearoa was a big learning curve, *"it*

really opened my eyes... learned about the hardships they have... and their culture."

Tutors are confident in their ability to play an instrument

393. It was noted that tutors needed to have a skill set in classical music. A number of tutors were observed proficiently playing musical pieces to the children. We noted also that there are one or two tutors who are more rudimentary musicians, although they appeared to have highly developed skills in terms of relating to and working with the children.

Tutors are skilled in working with large groups and small children

394. There was evidence that some tutors are very skilled in working with children, and that some are still developing these skills, and very new to the role. Feedback indicated that working with the children and in large groups was very much a learning experience for some tutors. This typically reflects the young age of some of the tutors, and that this is often their first experience tutoring.

395. The programme facilitators provide a range of roles to cater for the different experience base of tutors. There are a range of group sizes and roles the tutors can start with (if they are not so confident), *"we utilise staff strengths, it's a training process."*

"I also got some ideas on how to keep the children engaged and enthusiastic during the session."

"I now know how to do some basic group teaching from watching the senior tutors.... I've gained some skills for teaching and working with young children in general."

396. Teachers noted that the Sistema tutors they observed in the schools were very good, experienced teachers, i.e., they came well prepared, and had good control of the children. They were able to get the children's attention, and get them involved, using a very interactive style.
397. Parents noted the tutors make the programme fun for the kids, the atmosphere is fun, you can hear the kids singing, and playing, *"Dr Joe, he's really got control of them.... the children are so well behaved, they have a lot of respect for them (tutors).... even the volunteers."*

Ongoing professional development for staff and volunteers

398. A one day training course is provided for all tutors prior to the holiday programmes which they find extremely useful, *"a lifesaver."* This is often repeated by tutors.
399. Tutors noted that although the training was useful, they also felt that *"learning on the job"* was important too, *"It's only when you get there you put it into use and see how to do it properly."*

Programme staff "know" their community (e.g. know and are able to greet every parent and child on the programme)

- 400. Feedback indicated that the tutors especially enjoyed getting to know the children and parents as they participated in the tutoring. A notable key outcome for them was *"relating to the kids"* even though many had not been a part of the community in any way, and in spite of the community being very different from many of their own. Teachers noticed that the tutors know the children's names, and have built a really good relationship with them.
- 401. Many tutors were not from the Otara community but noted how rewarding the experience was, *"Working within the Otara community has been an astounding, unique and rewarding experience."*
- 402. The evaluators observed the greeting of all children and parents at the door by their names, in a friendly manner.

Finances and sustainability

Table 15: Summary of evidence – finances and sustainability

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent /Exemplary performance
Overall rating					
Programme participation is free to families					
Multiple streams of funding are secured					
Sufficient resources to ensure time and resource is available for strategic planning and future programme development					
A collaborative ('devised') approach to planning and organisation sustains ongoing adaptiveness					

Programme participation is free to families

403. As discussed previously the Sistema programme is free. All parents interviewed noted that the fact the programme was free was important to their participation and acknowledged the opportunities *"that we never had."*
404. However, a number of stakeholders interviewed acknowledged that it was difficult for some parents to bring their child to Sistema and that parents' commitment was important. A lack of transport for some families due to parents working, or not having an available car was noted as a significant factor for potentially inhibiting access for some families.
405. Initially children were picked up by a bus and brought to OMAC, and some of the children are still transported using school transport. Parents acknowledged costs of travel (petrol, mileage, bus fares), and the fact that it was good because it was local. Carpooling was suggested by a number of people, and currently occurs at times, where parents help each other out with transport.

Multiple streams of funding are secured

406. The key source of funding has been the Ministry for Culture and Heritage, with Creative New Zealand recently undertaking this role. The programme is showing signs of steadily growing additional income such as from fundraising efforts, and other grants, but the vast majority of funding still comes from the Ministry.
407. The programme also relies on the generosity of individuals and organisations who donate their time, as well as on occasion, instruments, to make the programme viable. We were told of a number of organisations and individuals who have contributed or sponsored instruments.
408. In only its second year of operation, the programme's management have demonstrated that they are 'savvy' at managing the resources they have. The project has been delivered to a high standard within budget, and there has been effective use of voluntary and other sources of resource.
409. A key stakeholder (one Principal) noted sustainability of valuable programmes like this one is essential. Continuity of programmes, that is, *"being in it for the long haul"* is important for the children, parents and community, or *"most of the good work will quickly be lost."* Stakeholder feedback including parents and teachers, noted the significant value this programme has had, in particular its ability to connect with the children and parents. Parents noted their only key concern was that the programme might not be able to continue. Many parents and children had long-term hopes for what this programme could do for them.

Sufficient resources to ensure time and resource is available for strategic planning and future programme development

410. Discussions with the Director and programme documentation confirm that considerable amounts of strategic planning for Sistema have taken place at programme level with a five-year plan developed but not yet in place, *"The programme, musically... it's absolutely sustainable, there are clear pathways, ideas, five year plans, how we would operate, staff it, roll out nationally."*
411. And although we found evidence of demand from parents within the South Auckland area for the programme to be extended to other areas, *"I have families in other areas who would love to bring their children, but it's out of zone,"* there have been no decisions as yet on whether the programme will be offered in other areas.

A collaborative ('devised') approach to planning and organisation sustains ongoing adaptiveness

412. It would seem there has been a great deal of adaptive management between the programme Director, Facilitator and tutors, ensuring the programme's responsiveness to the needs of the children, within the capacity of the programming resources.

413. There is good evidence that planning while the programme was developed was collaborative, and took place in an adaptive, ongoing way. The Director indicated he is open to and welcoming of new ideas and innovation by team members, *"I'm even happier when people I'm working with bring their ideas...when someone comes up with an idea that goes just as well as anything I can think of..."*
414. This was confirmed by tutors who noted they were all involved in planning and adapting the programme, *"Even though the organisers have a pathway... when we get together, our resources are expanded, because we all input a little bit of knowledge."*
415. It would appear that there is some room for the development and future inclusion of parents and other stakeholders in the programme's development. A number of suggestions were made during interviews by key stakeholders. Parents noted improvements such as having more space, as well as having different groups running on different days. One parent noted that she knew of other families in other areas who would love to bring their children *"but it's out of zone"* and a teacher noted that it would be good if it was opened up to other year groups as many parents with older children were keen to get them involved.
416. Greater promotion amongst parents and the community were strong suggestions made by parents. All parents in one focus group agreed it would be good to have a concert in Otara *"to fully show our community what our kids can do."* Some noted the community didn't know what was going on in Sistema for example, *"the parking wardens... they ask, what have those kids got.... where are they playing, yet they should know already..."*
417. A Principal noted that the PR marketing aspect of the programme was critical to its success, *"getting families more aware"* of what a wonderful opportunity this programme this is. He felt the uptake of the programme could be stronger. One teacher was also keen to gain a better understanding about how the parts of the programme worked together, and who the programmes were for.

Relationships

Table 16: Summary of evidence – relationships

	Ratings				
	Poor	Performance is barely adequate	Reasonable performance	Strong performance	Excellent /Exemplary performance
Overall rating					
Introduction of programme is appropriate and effective for its community					
Parents and families trust the programme staff to care for and develop their children's abilities					
Parents, families and children understand the programme's routines and details, as well as how their children can progress					
Parents, families and children are strongly committed to and engaged in the programme					
The local community is actively involved and contributing to the programme					
Engaged and supportive teachers in participating schools					
Effective relationships and systems established with school Principals and administration					
The programme flexibly accommodates school contexts					
There are worthwhile and valued relationships with formal and informal volunteer pools					
There are effective relationships between governance (Steering Group) and programme staff					
There is a high level of support from supporting organisation/mentor (APO)					

Introduction of programme is appropriate and effective for its community

418. There is good evidence that the introduction of the programme was appropriate and effective for the Otara community. The programme was initially promoted with schools at the Otara Boards Forum meetings (a collective of 12 schools). Community and parents meetings were also held, *"It's had a very thoughtful and careful process..."*
419. Parents mostly heard about the programme through the schools showing schools were integral to children getting involved. One parent noted *"I thought it was amazing that they brought Sistema to Otara... it's the*

largest multicultural city... and we have been privileged to have a Sistema birthed out of here... and I'd love to see it grow."

- 420. The programme took a staged approach to engaging with children by offering Sistema music experience and learning in the participating schools for all Year 2s, in the first term of 2011. This was followed by promotion of the first holiday programme, followed by classes during term two, in-school as well as after-school group tuition at OMAC.
- 421. Schools also initially supported the programme by ensuring there were as few barriers as possible by supporting children to attend the OMAC sessions through transport or a walking bus.
- 422. Involving key community leaders in the initial stages, and on the Steering Group has been seen to assist with ensuring local interest, support and mandate for the programme was secured, *"A lot in the community is word of mouth, knowledge of contacts in community."*

Parents and families trust the programme staff to care for and develop their children's abilities

- 423. There is very strong evidence across all stakeholders that parents and families trust the programme staff to care for and develop their children's abilities.
- 424. There is an open door policy for parents and this helped parents get to know the staff and programme initially, which helped develop trust between programme staff and parents, *"We often started off with 40 parents around the hall...very necessary because that's what gave them the trust. They could see we were caring properly for their children."*
- 425. Parents in particular noted how trusting they were of the staff, and how much they respected the programme facilitators, *"I can trust Sistema group with my daughter, I never worry about her... they are like family..."* A grandparent talked to tutors about how thankful he was, *"I really love you guys and what you do for my kids."*
- 426. One parent spoke about the *"amazing ahua"* of Dr Joe and his team and how they speak to the children, *"He speaks with his body and his hands, and he is always smiling..."*
- 427. Parents also talked proudly about how far their children had developed in one year.

Parents, families and children understand the programme's routines and details, as well as how their children can progress

- 428. Parents were all aware of the programme routines and approaches, and agreed that the group approach worked well for their children. One parent noted their child's progress in a year was amazing. Parents noted children developed routine, discipline, patience, confidence, and new musical appreciation while participating in the programme.

Parents, families and children are strongly committed to, and engaged in the programme

429. There is strong evidence from all stakeholder groups interviewed confirming that parents, families and children are strongly committed to, and engaged in the programme.
430. All the parents who were interviewed showed a strong commitment to the programme, one parent noting *"we are in here for the long term... I want my girl to be performing for the long term... as a whole I'd like to see them as a whole PI and Māori orchestra."* Many who were interviewed talked about how the children *"just love it."*
431. Attendance statistics show that there has been a 31% dropout rate overall, from the beginning of April 2011 to the end of term two in 2012, from 106 down to 73 students. However, at least a third of these withdrawals are due to children or families moving out of the area. Programme staff commented on feedback from schools about the often transient nature of some families in the area, and this appears to also have affected Sistema attendance rates. The rates of withdrawal vary across the participating schools, with the school that had the highest intake initially also having the highest withdrawal rate.
432. Commitment needed for the programme was seen as "big" for parents and families due to the number of practices per week, and there were some challenges in some families juggling Sistema with sports practices. There were also challenges around learning "classical music" and how that fits with some families.
433. Several parents noted the time commitment and that it was a big adjustment for the kids (from two sessions to three per week, juggling sports). One parent noted *"I was concerned at first about the lot of practice... but what I see is that the kids are loving it... and they are not complaining about it... and actually after the five weeks and it stops we miss it... but it is a big commitment."* (Parent)
434. Some children commented they sometimes did not want to go but there was also feedback from parents that others missed it during the breaks. A school Principal noted *"there are a range of responses to how committed they are, as you would expect. But they all enjoy and value it."*
435. Some teachers noted that the parents whose children chose to attend Sistema were already committed parents, one teacher choosing children she knew would be supported by the parents to attend, *"Parents are so grateful that children are getting the opportunity.... these parents go out of their way to push their children, committed parents doing a good job."*
436. Tutors noted the programme had *"gone viral"* and *"the kids really own it."* Another tutor noted *"there is a real strong connection they (children) have to Sistema... they have been 'Sistematised'."*
437. The children who were interviewed really enjoyed the programme and some noted they were keen to continue playing their instruments when

they grew up. Several were keen to travel with their music, and another wanted to be the best cellist in the New Zealand.

The local community is actively involved and contributing to the programme

438. There was some evidence that the local community is actively involved and contributing to the programme, however more parental involvement in the development of Sistema within the community could be addressed in future planning.
439. Feedback indicated that there had been a lot of community input into the development of the programme, *"massive" amounts... "quite a big journey... the heart of the concept is that the community does help feed into it, direct it..."*
440. Local community input is demonstrated in the involvement of key community leaders in the Steering Group who are well known and represent a number of community, business and school groups. It is also demonstrated in the way schools were involved at the start, and the location of the programme, based at OMAC gives it a very local presence, *"That has given it visibility, mana and accessibility."*
- "(I am) delighted by the positive reception from the community, the way different groups and how community have participated in discussion from schools, parents, local business, business networks... a great community spirit behind it."*
- "Very strong involvement of the seven schools involved, they have been pivotal to making it an effective community programme because it involves the kids in those schools, also their teachers, and parents and other whānau and family around.... school involvement has been absolutely vital."*
441. Some feedback indicated the main support for the programme is the whānau of the children involved, *"You can call them volunteers, thing is they don't have the money but they're getting an opportunity... greatest resource in any programme is people, not just the parents, the aunties uncles, come along and do cups of tea, behind the scenes stuff, some parents have got fully involved."*
442. However, there were also views from parents that the community did not necessarily know what was going on at the Sistema programme, for example, *"the parking wardens... they ask, what have those kids got? Where are they playing, yet they should know already..."* They also noted that a concert had never been held in Otara. All parents in one focus group agreed it would be good to have a concert in Otara *"to fully show our community what our kids can do..."*
443. Feedback generally indicated however, there is good accountability through a representative on the Steering Group back to a key Otara network group. A key aspect identified for this role was ensuring that the focus on community, school, and parents remains strong, as they are the

key stakeholders, and also that developments are communicated effectively, *"If you keep that focus strong you won't lose the programme."*

444. Parental input into planning and decision-making was seen as something that could be expanded on. Another area of future development noted by facilitators was the plan to incorporate parents more into the tutoring roles.

Engaged and supportive teachers in participating schools

445. All teachers and Principals (from 6 out of 7 participating schools) interviewed were very supportive of the Sistema programme. Teachers played a core liaison role with Sistema staff, and organised the classroom set up, promotion with children and families, support, and sometimes transport, to get children to their classes during and after school.
446. The schools also reported providing lots opportunities for Sistema children to perform, and cater to visiting classical musicians, *"Any way possible where our children can excel we go the extra mile."*
447. Schools talked about the value they were getting from the Sistema programme in comparison to some other programmes, and saw it as well established and effectively run, *"The value we're getting from Sistema is huge. We would never consider pulling away from the programme."*
448. Feedback from schools indicated the benefits were not only in the confidence and other skills being built in the children, but also in the larger picture that Sistema will impact in future. Future impacts that were talked about were the development of a whole orchestra, children continuing their playing and the effect this will have going into intermediate and secondary school, as well as the range of new opportunities this programme offers children now and in the future.

"The school is proud of our children and how much they've achieved.... Everyone was amazed and impressed."

Effective relationships and systems established with school principals and administration

449. There is strong evidence from school feedback that there are effective relationships and systems in place to support children attending Sistema, for example, a school liaison role, and strong support from Principals.
450. Schools offer practical supports for the students such as operating a walking bus to the programme, another school also provides transport. Feedback indicated there were good protocols and processes, and Sistema staff operated in a way that was as least disruptive and unobtrusive as possible, within the school environment.
451. Schools provide flexibility by supporting in-school sessions and accommodate children being taken out of classroom for performances or afternoon sessions, *"very accommodating and very happy because they see the benefits."*

452. As stated earlier, there is strong evidence that schools value the programme, and therefore are committed to ensuring its effectiveness within the school system, *"We are behind this 100% and because of that we make it work."*
453. One improvement suggested by one teacher was to ensure there is more than one school contact, as the school has missed out on a visiting musician because they were not aware of the opportunity due to a key contact teacher being on leave.

The programme flexibly accommodates school contexts

454. Feedback from all schools indicated that the Sistema programme accommodates and works really well with the different school contexts, *"Schools are hugely happy and keen...schools think it's wonderful."*
455. One school also noted that the programme was also very responsive to a wide range of children's abilities including those with learning needs.

There are worthwhile and valued relationships with formal and informal volunteer pools

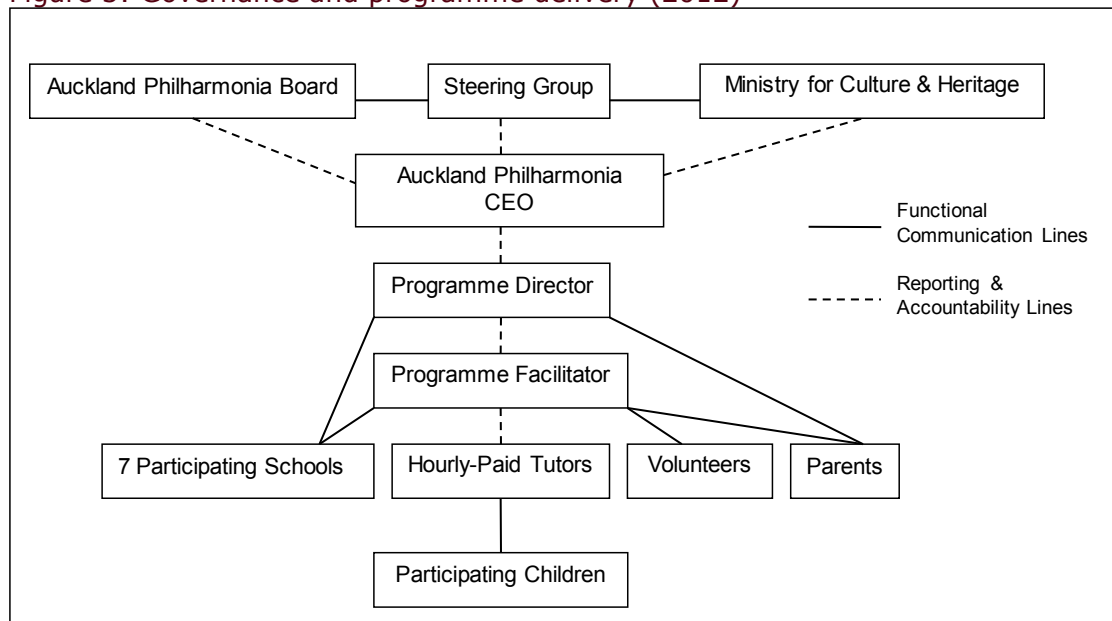
456. There was sufficient evidence indicating that there was a good support provided by a range of families, parents, siblings, and grandparents as well as volunteers, *"Have all done a lot of support... very forthcoming."* Facilitators noted a core group of volunteer family members who supported the programme, and a lot more who helped on trips and performances. One volunteer was also able to be employed part time in the programme.
457. There were many volunteer tutors who have participated in the programme during the last year, some of whom were students from Auckland secondary schools, including King's College, ACG Senior College, St Cuthbert's College, Baradene College, Diocesan School for girls, Home Schooling (the last three schools have also raised funds to sponsor instruments for the programme). There is a formal volunteer agreement for the term-time after-school courses with King's College through its community service programme and music department. Training is provided to these students and feedback forms are filled out after the programmes. Many of these tutors highlighted the rewarding and learning experience Sistema gave them, and how they felt supported by the organisers and other tutors, *"I've learnt so much as a tutor, this has really enhanced my teaching."*

There are effective relationships between governance (Steering Group) and programme staff

458. There was recognition that the community's involvement in the Steering Group was vital, and that this was evident through significant community leadership represented. *"There's quite a grounded knowledge about the community on the Steering Group... it's not a context where assumptions are made without being tested."*

459. There was also feedback that the programme director and facilitator ensure ideas and changes are discussed with staff as well as with the Steering Group before making it part of Sistema Aotearoa.
460. One respondent did suggest, however, that there are sometimes challenges for the director in ensuring knowledge about what happens 'on the ground' is effectively communicated, understood and incorporated into decisions made by the Steering Group.

Figure 3: Governance and programme delivery (2012)



There is a high level of support from supporting organisation/mentor (APO)

461. An observation was made that there is a solid commitment from APO in delivering the programme and being clear about the value and purpose of it.
462. APO has always been supportive, however this has been challenging due to the strain of staff resources. *"We've had to rearrange workloads and plans to give Sistema the support that it needs... we believe in it."* Challenges such as absorbing all the PR resources were noted, and this is challenging for the fundraising team. There are, however, a lot of people who want to be involved (prestigious musicians, semi-retired, people in the community).

6 Conclusion

463. Sistema Aotearoa is a high performing programme that is making a difference in the lives of the children and the families participating in the programme. There is promising evidence of potential long-term outcomes being realised. Given sufficient time and resources, early indications are that Sistema Aotearoa is likely to have a long lasting and transformative influence on the lives of the participants, their families and the community.
464. Sistema Aotearoa has the potential to effect both individual and social outcomes. These are many and varied and the potential is exciting. For example, it has been proposed that language and music share relevant neural processing mechanisms, utilise similar regions of the brain and during the early developmental years children may actually mentally process language as a type of music. Further, improved capacity in encoding and identifying speech sounds and patterns and the development of language related skills, is thought to contribute to the development of reading skills and there is a strong relationship between mathematics and music. A number of studies have investigated the interrelationship of musical training to intelligence and academic performance, many finding a positive association and in a study of 25,000 students Cattarall, Chapleau, Iwanaga (1999) found that arts-rich students outperformed arts-poor students on every measure of academic achievement (cited in Fix and Sivak, 2007).
465. Schellenberg (2005) surmised that real-world effects of musical training on intellectual abilities are long lasting, larger with longer periods of training, not attributable to obvious confounding variables and distinct from those of non-musical out-of-school activities (p.319). The National Arts and Youth Demonstration Project found that youth who participated in musical education programmes “demonstrated an improvement in both social and technical skills, increased confidence, improved interpersonal skills, improved conflict resolution and problem-solving skills, and decreased level of conduct problems, emotional problems, anti-social behaviour” (Fix and Sivak, 2008, p. 147).
466. Substantive community, social or economic impacts however, take longer to achieve. Unfortunately, there is a scarcity of longitudinal studies that are able to capture long-term outcomes. At best, a number of studies measure outputs that may in time produce or contribute to community, social or economic outcomes (Bolstad, 2010). This has resulted in a body of literature that while pointing to and discussing a number of potential community, social and/ or economic impacts, fails to provide comprehensive empirical evidence.
467. We feel there is an opportunity for Sistema Aotearoa to lead in providing a strong evidence base both in transference research and in longer term familial and social impacts.
468. Sistema has worked hard at forming strong, trusted relationships with children, parents and families, schools, the community, funders and

supporters. This is a credit to the organisation. Their governance arrangements are sound and work well. Sistema Aotearoa could benefit from increased parental involvement in governance moving forward and increased parental and community involvement in planning for the future.

469. The Sistema Aotearoa's trial design, content and delivery stands out as an example of strong formative processes and high quality programme implementation. Committed leadership and capable and expert management have combined to ensure that Sistema Aotearoa captures the key principles of the global Sistema approach, at the same time, skillfully adapting the programme to suit the cultural needs of the local context. Although there are some small areas where improvements can be made, these are mostly known to Sistema governance and management and are being addressed. We also noted a willingness on the part of Sistema governance, staff and management to engage in the evaluation process in an open and transparent way in order to reflect on their practice and to improve. This bodes well for the future.

7 Recommendations

470. Given the purpose, nature and timing of this research, recommendations are intended for Sistema Aotearoa's Steering Group and management to assist in the programme's ongoing development. That said, our headline recommendation is:

- *That all parties involved should endeavour to ensure the continuation and sustainability of Sistema Aotearoa.*

471. Specific recommendations are designed to complement the raft of activities already being undertaken. These fall into five categories:

1. Capacity building
2. Relationships
3. Child development
4. Community development
5. Ongoing research and evaluation

Capacity building

472. The programme depends on the quality of frontline delivery. Staff training and capacity building is crucial to the ongoing efficacy of Sistema Aotearoa. Sistema Aotearoa is exemplary in its programme delivery in many respects already. Areas where more emphasis could be applied are:

- *Ensure staff are sufficiently trained to address or deal with community and/or societal issues as they encounter them in the Sistema context. This also means that the Steering Group and management will need to ensure that policies and support mechanisms are in place for staff when situations arise that are outside of their role and/or competency to manage and that staff recognise when this is the case.*
- *That Sistema Aotearoa seeks to pursue closer and more visible alignments with school curricula and learning competencies in partnership with the schools.*
- *That Sistema Aotearoa continues to explore and learn methods of dealing with the challenges of non-cooperative and/or highly disruptive child behaviour.*
- *Provide opportunities for teachers and staff to learn from each other, particularly in teaching pedagogy.*
- *That Sistema Aotearoa systems and processes are codified and captured to ensure continuity and to provide a framework for continual learning and improvement. This will also aid any expansion or extension of the programme in the future.*
- *Develop position descriptions and succession plans for key programme staff to ensure the sustainability of the programme.*

Relationships

473. Sistema Aotearoa depends on an ecosystem of relationships for its ongoing success. These relationships include those with parents, schools, funders and sponsors, the local community, the APO, local and central government, and other partners and supporters. In this respect, Sistema

has set in place a strong base to work from. Some more specific recommendations for the future are:

With schools

- *Explore how participating schools are promoting and providing access to Sistema Aotearoa for children eligible for the programme and work towards a common understanding of the nature, purpose and outcomes of the programme (a further developed programme logic will help in this respect – see (5) below).*
- *Endeavour to gain funding or sponsorship for transport to and from the programme.*

With parents

- *Further encourage involvement of parents as volunteers in the programme and where possible the transition into more formal arrangements.*
- *Include parental representation on the Steering Group.*
- *Put in place mechanisms for parental input/feedback at all levels.*

Child development

474. It is apparent throughout this report that there is immense pride felt by the children in participating in Sistema, reaching certain milestones and in particular the sense of pride and achievement associated with performing in an orchestra for an audience. In this vein our recommendations are:

- *Ensure the continuity of the programme with regular intakes and graduations.*
- *Have a goal of building towards a full symphony orchestra.*
- *Bring graduates and older children in to the programme to serve as role models and tutors. This will provide goals for children beyond the programme and further embed a sense of community ownership.*
- *Think about, plan for, and seek to facilitate pathways for children after they have been through the Sistema programme.*

475. It is too early to provide meaningful data on transference of skills and knowledge from participation in Sistema Aotearoa to other areas of child development and achievement. However, there is sufficient evidence from this research, from the evaluation of other programmes, and from the literature more generally to suspect that there are benefits well beyond learning an instrument and playing in an orchestra. We feel it is important to try and build an evidential base to test this assumption and we cover this in (5) 'ongoing research and evaluation' below.

Community development

476. It is too early to determine social and community development outcomes of Sistema Aotearoa. There is no doubt, however, that those within the community associated with the programme see community benefits accruing already. This is also a long-term research question assessing

these kinds of outcomes and is addressed in (5) below. In the interim we recommend that:

- *Sistema Aotearoa provide more formal concerts within Otara, to highlight the children's achievement, further raise the profile of the programme and build a sense of pride within the local community.*
- *Work towards building an Alumni of supporters and graduates.*

Ongoing research and evaluation

477. We strongly recommend a long-term research and evaluation framework be established as part of an ongoing programme. We believe that there is something special about this programme and are keen that this is captured. We also believe that this is a unique research opportunity for a number of reasons. These include:

- That Sistema Aotearoa, while adhering to and following the Sistema International model, has adopted that programme to local conditions.
- That there is little substantive evidence internationally that explores the transference of knowledge, skills and aptitude from group-based musical education to other areas of learning and development.
- There is little evidence of longer term social and community outcomes.

478. Therefore we recommend that:

- *Under any new funding regime, funding is set aside to put in place a long-term evaluation framework that gathers qualitative and quantitative data over time rather than through sporadic or ad hoc evaluations.*
- *An updated programme logic is developed to take account of new evidence as it appears and to support the development of an evidence-based intervention narrative.*
- *International indicators (i.e. those observed/invoked within the global network of Sistema-based programmes) are integrated with indicators that are appropriate for Sistema Aotearoa. These may include, for example:*
 - *Retention rates across participating schools.*
 - *Demographic data for each cohort.*
 - *Sistema Aotearoa's contribution to childhood social and academic development.*
 - *Gathering quantitative educational performance data over time and comparing to norms.*
 - *Graduate and programme success stories.*

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Appendix 1

Summary of differences between Sistema Aotearoa and UK-based programmes

In September 2012, the Director and Programme Facilitator visited three Sistema-based programmes in the UK. Based on observation and discussions with children, parents, community members, musician tutors, as well as members of each programme's management, administration and governance teams, the Sistema Aotearoa Director and Facilitator identified the following differences between practices in the UK and those in Sistema Aotearoa.

	Sistema Aotearoa	Observed programmes
Size of group taught	Students taught in large group sectionals (20+) and full orchestra setting (70+). Limited (1:3) small group tuition.	Predominantly taught in groups less than 20 with additional small group / individual tuition.
Curriculum	Curriculum and lesson plans centrally and singly generated by Programme Director (PD).	Tutors generally responsible for writing their own lesson plans based on a broad curriculum outline.
Teaching practice	Defined and documented teaching methodology taught to and adhered to by all tutors. Tutors specifically trained in methodology to deliver programme to large numbers.	Some variance in teaching practice. Less formal standardisation in teaching methodology.
Behavioural	Specific, documented protocols or guidelines for tutors/volunteers with regard to behavioural management. Professional support within programme staffing.	After-school component tended to follow the methods of the host school resulting in variance between schools in the same programme. Tutor staff and school staff sometimes had differing approaches. Tutors expressed desire for support with behavioural issues.
Environment	Community-based (OMAC) for offices, instrument storage and majority of teaching. Restricted to two large and one small teaching space.	School-based for offices, instrument storage and majority of teaching. Wide range of teaching spaces (up to 15) of varying sizes.

	No outdoor play area.	(particularly for in-school segments). Outdoor play space.
Instrumentation	Violin and cello only.	All stringed instruments and percussion with full orchestral range in some programmes.
Delivery method	Predominantly community-based delivery (after initial in-school orientation teaching).	Predominantly school-based delivery.
Liaison with parents	Up to six points of contact per week with parents/caregivers and an 'open door' policy.	The larger the proportion of delivery within the school timetable day, the lesser the everyday direct contact the programme had with parents/caregivers.
Child assessment	Structured holistic individual child progress monitoring system based on direct student assessment encompassing musical, personal and social competences.	No individual formal assessment. Some programmes had broad-based criteria (e.g. if they are in red orchestra they display a certain level of competency...). Some engagement with external examination (e.g. ABRSM).
Staffing	Difficult to source appropriately skilled staff to cope with increased demands of programme growth.	Finding new staff was relatively straightforward with a number of applicants for any vacancy.

Appendix 2

Sistema Aotearoa programme logic

Sistema Aotearoa is based on the El Sistema model, initiated in Venezuela in 1975 and now one of the world's most successful youth development and social transformation movements. Programmes in Venezuela, the USA, England and Scotland served as evidence of the success of the Sistema model in a range of cultures and countries.

The El Sistema model offers children and young people from low socio-economic backgrounds an opportunity to learn an instrument and become part of an orchestra. It builds high levels of organisation, cooperation, commitment and trust among young participants. This is credited with pre-empting negative attitudes and behaviours often prevalent in childhood spent in low socio-economic environments.

The Sistema model supports government's priority goal of building a competitive and productive economy. It makes a multi-layered contribution to national outcomes for social transformation and cultural development through developing the child, family and community in a holistic way over several years of activity. Over time, the programme develops capacity and capability within its community, to the point where members of that community are able to contribute meaningfully to the programme in terms of support, logistics, teaching, events and operation.

Programme aims and goals

Sistema Aotearoa's aims are to:

- Address social outcomes of deprivation
- Transform the lives of children, families and communities through sustained involvement in a music development programme
- Create a core of competent young citizens to be role models and leaders in low socio-economic areas where there is growth potential in social cohesion and employment
- Identify and leverage resources in the Arts to benefit children, families and communities with inequitable access to those resources
- Add to the trained talent pool in New Zealand's cultural industries, particularly music.

The goals of the Otara-based trial of Sistema Aotearoa are to:

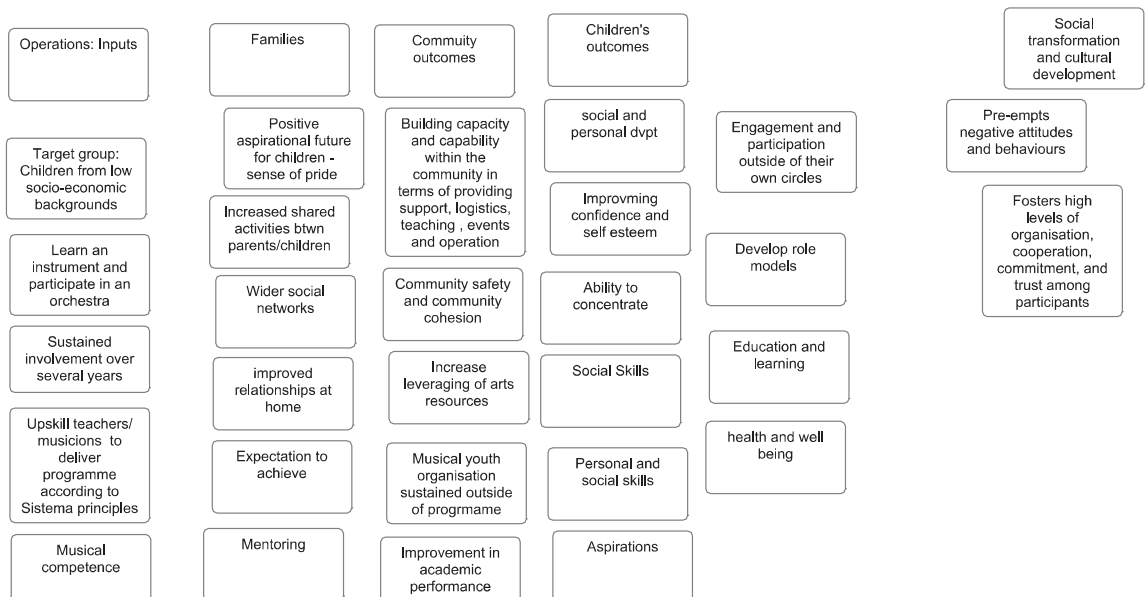
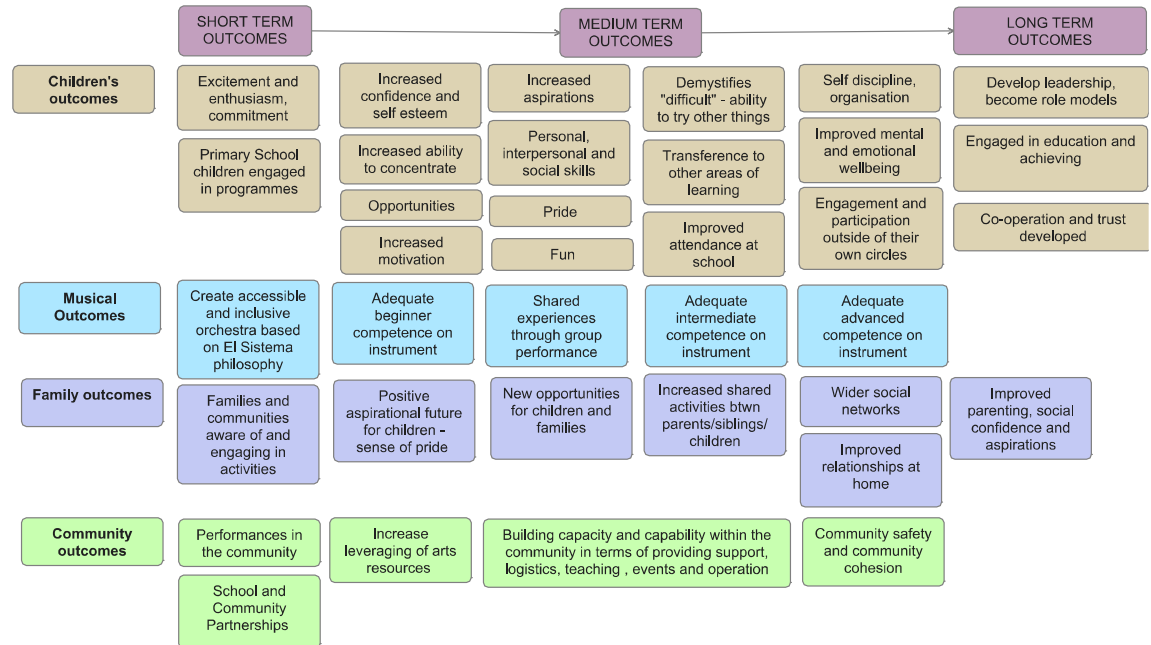
- Establish a music tuition programme with open access for Otara children and families.
- Lay the foundation of a fully accessible and sustainable local youth orchestra.
- Build participating children's confidence, self-esteem and motivation.
- Build trust, cooperation and respect among participating children.
- Develop parents'/caregivers' and families' social skills, aspirations for their children's learning and recognition of their abilities and achievements.
- Grow local, regional and national community support and valuing of the programme.

- Engage wider community resources and expertise to deliver and support the programme.
- Employ teachers/musicians and up-skill them to deliver the programme according to Sistema principles and methods.

Appendix 3

Sistema Aotearoa programme logic models

Figure 4: Programme logic models



Appendix 4

Empirical studies investigating the impact of music education at the individual level

Author/ date of publication	Method	Type of musical education or provision of musical interaction	Key findings
Rabinowitch, Cross, Burnard (2012)	<p>52 children from UK primary schools participated in a year long programme (female= 28, medium age= 10.3 years).</p> <p>Participants assigned to control (2) or music group.</p> <p>Pre and post tests for empathy and verbal ability.</p>	<p>Year-long music group interaction programme consisting of musical tasks and games. Programme designed by authors. 1 hour weekly meetings of either 9 months or 3 months.</p>	<p>No significant difference in verbal abilities across the music and control group.</p> <p>The music group scored higher on two of the three empathy tests.</p>
Kirchner & Tamasello (2010)	<p>96 children from 16 different German urban day-care centers were included in the study (females=48, mean=4 years and 6 months).</p> <p>Experimental design.</p> <p>The children were engaged in guided exercise (in the form of interactive story). The musical group exercise involved singing, dancing and playing percussion instruments. The non-musical condition followed the same setup and story, yet omitted the use of musical features.</p> <p>Subsequently tested on spontaneous helping and spontaneous cooperative problem solving.</p>	<p>No musical training. Experimental design included the use of <i>interaction</i> using music prior to testing.</p>	<p>The children chose the cooperative solution to the task more often and helped one another more after joint music making.</p>
Hyde, Lerch, Norton, Forgeard, Winner, Evans, Schlaug (2009)	<p>31 children recruited from Boston area public school.</p> <p>Quasi- experimental design.</p> <p>15 participants assigned to 'instrumental' group (mean age= 6.32 years). 16 participants assigned to control group (mean age= 5.90 years).</p> <p>Two groups matched on gender, age, and socio-economic status.</p>	<p>Weekly half hour private keyboard lessons for 15 months.</p>	<p>Instrumental group significantly outperformed in behavioural scores for motor and melody and rhythm tests.</p> <p>Compared with controls, the instrumental group showed</p>

	Pre and post behavioural tests and MRI scanning. Behavioural tests were musically relevant (finger moto sequencing test and meodic/rhythmic discrimination test).		significantly different brain deformation changes.
Forgeard, Winner, Norton, Schlaug (2008)	59 children recruited from Boston area public school (mean age= 9.96). Instrumental group consisted of 41 children who had a minimum three years instrumental music training. 3-4 testing sessions over a month.	Of the music group 21 received traditional instrumental training. 20 received Suzuki methods.	Instrumental group outperformed control group on fine motor skills and melody discrimination. Instrumental children outperformed control group in verbal ability and non-verbal reasoning. Instrumental did not outperform on phonemic awareness or spatial skills.
Gromko (2005)	103 kindergarten children participated in the study. Musical group consisted of 43 children who received four months of instruction. Control group (n= 60) received no musical instruction.	Musical group received musical instruction from four advanced music-method students for four months. Weekly music instruction for 30 minutes and included learning songs, matching music to movement, using graphical representations of music.	Musical group showed significantly larger gains in phoneme-segmentation fluency compared to control group.
Southgate and Roscigno (2009)	Draw from two representative data sources. The Early Childhood Longitudinal Study- administered to 20,000 U.S. kindergarten students (1998-1999) and the National Educational Longitudinal Study (United States)- administered to 25,000 eight grade to beyond high school (1998) . Applied logistic and OLS regression	Formal music participation in and outside of school.	Found that music involvement was associated to mathematics performance and reading ability for children in kindergarten.

	techniques to assess patterns of music involvement and math and reading performance.		
Schellenberg (2006)	147 6-11 year olds participated in the study (mean age= 9 years 1 month, females=75).	Prior music participation: Private lessons (n=53), group lessons (n=10) or both (n=19).	Found a correlation between the duration of music lessons and performance and school performance and verbal and non verbal IQ tests.
Hille, Gust, Bitz, Kammer (2011)	194 male school students aged 8-9 participated in the study. Retrospective design: measured reading performance, spelling performance, and non verbal intelligence. Asked parents about musical activities. 53% had received musical training.	The musical group consisted of children who had participated in choir, a course "First experiences with Music", or instrumental instruction.	The children (male) who played an instrument performed high on IQ tests and spelling tests that those who did not play.
Degé & Schwarzer (2011)	41 children selected from three kindergartens in Germany (mean age= 5 years, 9 months, females=19). Children assigned to musical group (n=13), phonological skills (n=14) and a control group (n= 14).	Musical group received 20 weeks of 10 minute training. Programme included joint signing, joint drumming, rhythmic exercises, rudimentary rotation skills, dancing, playful familiarisation with intervals.	Positive effect on phonological awareness found for the phonological and musical group. More impactful on large phonological units than small units.
Rickard, Appelman, James, Murphy, Gill, Bambrick (2012)	210 younger children and 149 older children selected from 10 schools in Victoria, Australia. Children allocated to treatment or control group. Tested on a battery of pre and post tests related to self esteem.	The younger children received 3 x 30 minute Kodaly music classes per week. Kodaly based on established principles of early childhood development and including an emphasis on singing and learning rhymes and folk songs. The older children participated in one hour string classes per week.	The musical programme yielded some benefits although this was generally modest. Evidence of declining self-concept in the younger children control group. The musical group self concept remained consistent. Musical instruction did not increase

			socially adaptive behaviour.
Moreno, Friesen & Bialystok (2011)	<p>60 children, aged four to six years old participated in the study.</p> <p>Children allocated to either a musical training group (n=30) or a visual-art training group (n=30). Children participated in treatment (either visual arts or music) over four weeks.</p> <p>Tested using a phonological awareness- rhyming test and a visual-auditory learning test.</p>	<p>Two session, twice daily over four weeks. Musical training programme was computer based and included training on rhythm, pitch, melody, voice and basic music concepts (such as the staff)</p>	<p>Both groups improved on rhyme awareness and ability to map unfamiliar symbols to known words. Magnitude of improvement was larger for musical training group.</p>

Appendix 5

About the authors

David Wilson (BA, MPP, PhD candidate) is the Director of the Institute of Public Policy (IPP) at AUT University. IPP is a multidisciplinary research Institute with expertise in social, community and economic development, Pasifika development, human rights, government and governance seeking to support policy in the public interest. He has led and been involved with numerous research and consultancy projects, directly and tangentially related to economic development, metropolitan governance, local government, business and industry sector development, corporate citizenship, performance assessment and sustainable development. David was integral in the design and implementation of the Metro Auckland Project, being a member of the international review team which authored the Metro Report that formed the basis for the Auckland Metropolitan Action Plan, a regional economic development plan. David peer-reviewed the economic development section in the Royal Commission's report on the governance of Auckland and has organised and led a number of conferences, public seminars and submissions to government since that time on the role, function and importance of local government in New Zealand society. David has come to academia from a commercial background attracted to the public good aspects and challenge and complexity associated with public policy. His prior commercial experience ranges from working in small, medium and corporate businesses in sales, marketing, product management, business unit management to owning and operating his own successful retail business for 15 years. David has a BA in social policy and psychology, a Master's in Public Policy with first class honours, and is currently completing his PhD in regional development.

Kate McKegg (BA, MA, PhD candidate - Melbourne University) is Director of the Knowledge Institute Ltd, and a member of the Kinnect Group (www.kinnect.co.nz). She has experience that spans evaluation, research, theories of change, systems thinking, organisational learning, developmental and adaptive management, strategic planning, stakeholder engagement, training and mentoring. Kate has a strong theoretical and pragmatic understanding of research and evaluation and a track record of delivering innovative and useful analysis and solutions that meet client needs. She has also developed and implemented teaching programmes in evaluation for Victoria University (Master's of Public Management), AUT (Diploma and Master's of Public and Community Health) and Massey University (Master's of Public Health) She is a founding member and board member of the Aotearoa New Zealand Evaluation Association (anzea), and is currently serving as anzea's Convenor.

Debbie Goodwin (BSocSci, MSW, PGDip Psych - Community), Ngai Tuhoe is Director of DBZ Consultancy Ltd and has trained as a community psychologist (University of Waikato) combining her academic learning with a pragmatic perspective in evaluation, community development, social justice, participatory approaches, organisational

development, and Kaupapa Māori / youth health service development. Her evaluation experience is largely with community-based programme and service development, spanning a range of sectors and organisations including health, mental health, social services, community, regional council, NGOs, Government and Kaupapa Māori organisations. Debbie is in her third year on the board of the Aotearoa New Zealand Evaluation Association (anzea), and recently co-convened the anzea 2012 conference.

Xavier Black (BBus, MBus) is a research officer with the Institute of Public Policy, AUT University. Her main research focus at IPP is the ESI Agents of Change programme, which seeks to understand the key processes that encourage and support innovative approaches that enhance students' aspirations to higher education. Her postgraduate research explored the process of business engaging with the community.

Pale Sauni (Diploma of Social Work, Post Graduate Diploma in Education and Professional Development – currently enrolled) has 25 years' experience in organisational management and leadership roles. He is proficient at providing strategic leadership and representation in diverse settings and has driven strategy from design to execution at an operations level in organisations. He is regularly called on by research teams to lead, oversee and/or undertake the Pasifika component of projects because he brings a unique Pasifika thinking style; which is innovative, strengths-based, pragmatic and transformative. He offers exceptional insight and understanding when working with Pasifika, Māori and in mainstream to achieve outstanding outcomes. He is known for his ability to support successful stakeholder engagement across disparate groups with diverse beliefs and aims. Pale is expert in engaging ethnic specific and cross-cultural participation and has a logical, practical approach to written and oral communication.

Ruth Toumu'a (PhD – Applied Linguistics, MA, Post Graduate Diploma in TESOL, BA) has recently completed her Doctorate degree, and has also held various roles at Victoria University of Wellington. In addition, she has been involved in a range of voluntary work in education and youth related endeavours. Ruth has familiarity with a wide range of Pacific and South East Asian cultures and languages and the ability to meaningfully engage with a wide range of people. Ruth's professional and research interests lie in the 'transition points' in the education system. As well as a strong commitment to the wider issues of student transition and retention, Ruth has over 12 years' experience relating to the participation, retention, achievement, completion and progression of students from groups not traditionally represented in higher education. Ruth's high levels of work ethic, self-management, and organisational and planning skills are evidenced in her work and research practice. Ruth's strong cross-cultural communication skills, empathy, inter-personal and relationship-building skills, strong verbal, written and interpersonal communication and public speaking skills mean she is a valuable asset in teams and organisations.

Saffron-Moana Middleton (BSocSci, Postgraduate Certificate in Public Health) is of Cook Island, Kiribati, Samoan, Scottish and English decent and is currently the Social Service Manager for Te Rapakau Pacific Trust. Saffron has 15 years' experience representing Pasifika wellbeing in health, education, social services, arts, culture and is a Trustee on Hamilton's Pasifika by Nature and Community Waikato. Saffron also represents Pasifika on a number of boards such as the local office group for the Ministry of Education and the Pasifika advisory group to the Ministry of Health. As the focus of funding moves towards high quality, evidence-based, value for money programmes and services, Saffron believes that through positive Pasifika engagement and knowledge sharing opportunities, community groups have to develop their evaluation capacity through a Pacific lens, and incorporate Pasifika beliefs and values so that the wider community have a better understanding. Saffron recently supported the delivery of the Pasifika Fono at the Aotearoa New Zealand Evaluation Association (ANZEA) conference. Both her paid and unpaid work reflects her personal interests contributing towards her recent appointment to that of President for P.A.C.I.F.I.C.A Kirikiriroa.

Kirsten Hanna (MA, PhD) is a senior lecturer with the Institute of Public Policy, AUT University. Kirsten received her MA and PhD from the University of Auckland in linguistics. Her PhD thesis examined word order in an Archaic Latin text, with a particular emphasis on its use in discourse structuring. Kirsten's current research focuses on children who give evidence in the criminal courts, with an emphasis on those aspects of the court process which can impact on children's ability to communicate effectively (e.g., the language used by lawyers and forensic interviewers to elicit children's testimony, children's use of alternative modes of giving evidence such as CCTV and pre-recorded testimony, processes for preparing children for their court appearance, and delays in processing trials). Kirsten has also published on child impact reporting (the vetting of public policy for its impact on children) and the role of government in children's well-being.