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Final Report

Evaluation of In Harmony:

Final Report

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Evaluation of In Harmony: Final Report

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Published in November 2016
By the National Foundation for Educational Research,
The Mere, Upton Park, Slough, Berkshire SL1 2DQ
www.nfer.ac.uk

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Registered Charity No. 313392

ISBN 978-1-911039-24-2

Lord, P., Sharp, C., Harland, J., Mehta, P. and White, R. (2016). *Evaluation of In Harmony: Final Report.* Slough: NFER.

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Acknowledgements

The research team at NFER is very grateful to all those who have contributed to the national evaluation of In Harmony, from 2012 to 2016. We would like to thank the children, parents, school staff and In Harmony programme staff who have contributed their time and energies to the evaluation, including taking part in surveys, case studies and focus groups. We are also grateful to school and programme staff for collating termly provision data.

We would like to thank the advisory group members for their guidance throughout the evaluation. Members include staff from the Arts Council England, the Department for Education, the Department for Culture, Media and Sport (DCMS) and Creativity, Culture and Education.

Thanks are also due to NFER's Research Operations Department for administering the pupil survey and collating the provision data, in particular Asma Ullah and Keren Beddow. We are also grateful to NFER statisticians Giulia De Lazzari and Adam Rabiasz for their support with the analysis; and to NFER researcher Richard White for his support with qualitative work throughout the study. We would also like to acknowledge the work of Neelam Basi and other NFER project coordinators for their administrative support throughout the project.

Executive summary

About In Harmony

In Harmony aims to inspire and transform the lives of children and families in deprived communities, through the power and disciplines of orchestral music-making. It is modelled around an immersive experience, where children play instruments together several times a week from an early age, within a whole-school and/or community-based approach. In Harmony is currently funded by the Department for Education and Arts Council England, and has been operating in six areas in England (see http://www.artscouncil.org.uk/music-education/music-education-programmes).

About the national evaluation

NFER has been undertaking a longitudinal national evaluation of In Harmony since 2013. The aims were to explore the impact of In Harmony for children, families, schools and wider communities, and to explore the future sustainability of the programme. A set of research questions, outcome indicators, and a Theory of Change underpinned the evaluation. The NFER research team conducted a series of pupil questionnaires, an analysis of provision and participation data, and case-study visits.

About this report

This Final Report presents findings from four sources: i) an annual pupil survey exploring perceived wellbeing and musical outcomes, ii) an analysis of the In Harmony provision and participation data (collected from autumn 2012 to summer 2015), iii) a focus group with headteachers and interviews with staff, children and parents in all In Harmony programme areas and iv) an analysis of attainment and attendance data from the National Pupil Database for 2012/13, 2013/14 and 2014/15. We have conducted multi-level modelling controlling for the effects of pupil- and school-level characteristics[1]. The analysis compared results from 11 of the In Harmony schools[2] involved in 2012/13 with a matched sample of 27 comparison schools (but note that this did not include other schools which joined more recently). We have also reviewed other research and evaluation reports.

[1] The pupil-level variables included in the model were: Special Educational Needs (SEN); English as an Additional Language (EAL); ethnic group and gender. The school-level variables included in the model were: percentage FSM; percentage SEN; percentage EAL; percentage White British; school type (voluntary aided, academy or other); and school value added attainment from Key Stage 1 to 2.

[2] Note, this study focuses on the 11 primary schools that were taking part in In Harmony in 2013. These schools have continued to take part during the course of the national evaluation. A twelfth school – a nursery school – has also been involved in In Harmony during this time period. We have not included this school in any of the models, as nursery aged children did not take part in the surveys, there are no comparable attainment measures and attendance data is not available for nursery schools.

Key findings

- Both the quantitative and qualitative evidence demonstrates that In Harmony has focused on schools with a relatively high proportion of children from disadvantaged backgrounds. This is to be expected given that the 2012 tender required programmes to focus in areas of deprivation. In Harmony was inclusive of all children during curriculum time. When taking In Harmony as a whole, boys and children with Special Educational Needs (SEN) were statistically significantly under-represented in extra-curricular provision during the evaluation period. Children from White backgrounds were also under-represented in extra-curricular provision, though this could have been affected by differences in the extent of extra-curricular participation across In Harmony areas.
- There was an initial positive association between participation in In Harmony and children's attitudes towards music (musical enjoyment and achievement; desire to play/continue playing a musical instrument in a group; and desire to sing/continue singing in a group). This appears to have been influenced by the fact that two areas had already been involved in In Harmony for some time and others had held some introductory activities before the first survey took place in 2013. The initial high attitude scores of In Harmony pupils meant that they had limited room to improve. Scores of pupils from In Harmony schools remained statistically significantly higher than comparison pupils in 2015, although the difference had narrowed significantly for two of the three musical factors (musical enjoyment and achievement, and desire to play/continue playing a musical instrument in a group).
- Attitudes to music were significantly more positive for children who had more hours of participation in In Harmony.
- Compared with children in comparison schools, a significantly higher proportion of children from In Harmony schools said they were learning a lot in music.
- The qualitative data demonstrates that participants (children, parents and school staff) were very positive about the In Harmony programme. They reported that In Harmony was enhancing children's enjoyment of music, their musicianship and their technical skills. They also said that it had benefited children's social and emotional wellbeing, especially their confidence, communication and relationships with others.
- Interviewees identified wellbeing as one of the strongest outcomes for children taking part, although there was no quantitative evidence from the pupil surveys that children's perceptions of their social and emotional wellbeing was enhanced through participation in In Harmony compared with children in non-participating schools. This may have been influenced by relatively high scores obtained at baseline, leaving limited room for scores to improve.
- When analysing attainment over time, we see that the Average Point Scores for both In Harmony and comparison children improved significantly from 2013 to 2015.
- Attainment in both In Harmony and comparison schools improved significantly from 2013 to 2015, although there was no quantitative evidence that children who participated in In Harmony made greater progress than their counterparts. Comparison schools improved to a similar extent at Key Stage 2, and more so than In Harmony schools at Key Stage 1

(though this difference reduced during the evaluation period and was no longer statistically significant in 2015).

- School interviewees were cautious about claiming that In Harmony was having a positive impact on attainment, but said it had enhanced children's skills for learning, such as confidence, concentration, communication and perseverance.
- There was no association between In Harmony participation and pupil-level attendance at school. This is not unexpected, as primary school attendance is generally high, so there was limited opportunity to detect differences between children who had and had not taken part in In Harmony.
- Parents were very proud of their children's achievements and supported them to practise at home. There was consistent qualitative evidence that In Harmony was encouraging parental engagement with schools, as parents were attracted to see their children perform. There was some qualitative evidence of a positive influence on parents' expectations and aspirations for their children. There was also some qualitative evidence that parents were forming social relationships with other parents, especially related to children's involvement in extra-curricular teaching, concerts and trips.

Key learning from In Harmony

- In Harmony has become embedded into the culture and practice of schools. There are a number of features of In Harmony that are integral to its success. It is an intensive and holistic programme that has established a strong committed partnership between schools and providers. Its distinctive pedagogical features include: high quality versatile music educators who work in partnership with schools and cultural organisations, and act as role models for children; ensemble and orchestral part-playing from the start; children taking individual and team responsibility; and instrumental learning leading to inclusive performance opportunities.
- Providing instruments is an important feature of In Harmony because it enables children to practise on their own instruments outside the classroom and to build respect and care for them.
- In Harmony is focused on primary schools, but most providers have included early years' provision, and are offering after-school provision for primary age children and those who have made the transition to secondary school. Five out of six programmes have expanded their offer to involve more primary schools.
- A number of In Harmony programmes have integrated their provision with music education hubs. They have secured additional funding from a variety of sources but find the core ACE/DfE funding is important in giving confidence to other funders. Schools have increased their financial contributions.
- Common challenges identified by In Harmony providers include: building progression and transition routes for children leaving primary school; expanding their provision to other children and schools; developing greater synergy with other delivery organisations; supporting workforce development and capacity-building in schools; and increasing parental and community engagement.

Conclusion and implications

In Harmony appears to be making a positive difference to children's musical outcomes. It is a popular programme amongst participants who attest to its contribution to social and musical outcomes for children from disadvantaged backgrounds who may not otherwise have had the opportunity to learn an instrument. While we have found no quantitative evidence of a positive association between participation in In Harmony and attainment outcomes, it may be that these are longer-term outcomes which are too early to detect within the period covered by this study.

These results support consideration of further public funding for In Harmony on musical and social grounds, and ideally it would be important to continue to monitor outcomes in the longer term. It would also seem important to investigate different models of funding and delivery to secure a better foundation for longer-term viability. In addition, the cultural sector may wish to explore whether a similar intensive, ensemble-based and partnership approach could support cultural outcomes for children and schools in other musical genres and art-forms, in order to pursue the objectives of *Achieving Great Art for Everyone* (ACE, 2010). There is scope for In Harmony to identify and share best practice in relation to pedagogy and inclusion, both within In Harmony and between In Harmony and the education and cultural sectors, in the interest of achieving a higher standard of music education for all.

1 Introduction

1.1 About In Harmony

1.1.1 The In Harmony programme

In 2012, Arts Council England awarded funding to six organisations to run or continue In Harmony programmes in some of the most deprived areas of England. In Harmony is a national programme that aims to inspire and transform the lives of children in deprived communities, using the power and disciplines of ensemble music-making.

In Harmony aims to transform the lives of children in exceptionally deprived circumstances through the power and disciplines of community-based orchestral music-making. Therefore, rather than focusing on the enjoyment of music for its own sake, the programme is designed to achieve social change through dedication to rigorous, artistic ensemble playing. The orchestral structure enables young musicians to learn together in ensembles, allowing for the development of leadership and supportive roles, and providing opportunities for smaller groups to play together. In Harmony is one of many El Sistema-influenced projects which have been established in countries around the world[3], but has been developed in several different ways to adapt to the English context.

Since April 2012, In Harmony has been jointly funded by the Department for Education (DfE) and Arts Council England. The aim of the In Harmony programme is to develop active, sustainable and cohesive communities through whole-school and/or community-based orchestral music-making and learning. It seeks to improve children's musical skills, attainment and life chances, family wellbeing and community cohesion and respect. Through In Harmony programmes, children play instruments together several times a week from an early age, within a whole-school and/or community-based approach. The programmes are expected to demonstrate how the lives of children and families can be transformed by the In Harmony approach, whilst representing local responses to specific circumstances and contexts. The programmes are also expected to plan for sustainability in the longer term.

Two of the In Harmony programmes have been operating since 2008 through the DfE funded pilot scheme – these were located in Liverpool and Lambeth[4]. The four additional schemes commissioned in 2012 are located in Newcastle-upon-Tyne, Nottingham, Leeds, and Telford and Wrekin/Stoke-on-Trent. The six programmes are managed in different ways – two by music education hub lead organisations, three by National Portfolio Organisations (NPOs), and one through a partnership between a local authority and an NPO (see Section 2.2 for more details on each In Harmony scheme). In 2012/13, 11 primary schools and one nursery were engaged in the main In Harmony provision.

[3] The El Sistema USA website lists numerous projects in the USA and Venezeula, together with programmes in 55 countries; see https://elsistemausa.org/.
[4] The other 2008 pilot, In Harmony Norwich, was not successful in its application to In Harmony for funding in 2012, but has continued under the name *Sistema Norwich*; see http://www.sistemanorwich.org.uk/sistema-in-norwich.html.

By September 2016, 13 primary schools, two secondary schools and two nurseries/family centres were engaged in In Harmony, with an additional 14 schools in Nottingham operating at a less intensive level. Expansion to out-of-school provision, neighbouring schools and secondary school transition work means that In Harmony is reaching substantially more children than before.

In 2014, Arts Council England identified some underlying principles of In Harmony from early evaluation reports. They have recently updated the principles and these are shown in the box below.

In Harmony principles

- Focus on areas of deprivation and low engagement
- Demand-led, committed whole school approach
- Integration within music education hubs/alignment with hubs
- Professional musicians, ensembles and orchestras working with schools
- High profile performance opportunities
- Continuity and progression for children
- Access to instruments
- Sharing expertise and resources
- Intensity and regularity.

1.1.2 Policy context

In Harmony represents an important policy contribution to Goal 5 of Arts Council England's 10-year strategic framework *Achieving Great Art for Everyone* (2010): 'Every child and young person has the opportunity to experience the richness of the arts'. A stated aim of Arts Council England's music education programme is to fulfil the expectation that every child will have the opportunity to sing and play instruments – both solo and in groups – and to be able to take these skills further if they have the talent or inspiration[5].

The 2011 National Plan for Music Education (DfE and DCMS, 2011) noted the initial success In Harmony and recommended that the programme should form a key part of the national plan:

> *The programme* [In Harmony] *will be expanded to enable children from across the country to benefit from the programme's success, to support existing projects to become self-sustaining, and to ensure alignment with the work of hubs. To reduce exclusive dependence on central government support and as a base for further expansion, projects may also be able to draw on charitable/business support or on Lottery funds.*
>
> **(DfE and DCMS, 2011, p. 20)**

[5] http://www.artscouncil.org.uk/music-education/music-education-programmes

There have been other important developments in English music education in response to the National Plan for Music Education. In September 2012, 123 music education hubs began work with the remit to provide access, opportunities and excellence in music education for all children and young people. In 2013, an Ofsted report highlighted the long-standing problem of low standards and patchy provision for music in schools (Ofsted, 2013). Subsequent national monitoring reports on music education hubs (Sharp and Sims, 2014; Sharp, 2015) showed that hubs were working with most of the state-funded schools in their area. The characteristics of pupils taking part in whole-class ensemble teaching (WCET) were similar to the general population (in terms of gender, social background and special educational needs (SEN)) but boys and pupils with SEN were considerably under-represented among children participating in instrumental ensembles and choirs.

Like music education hubs, In Harmony also aims to provide children with access to high-quality music education. But in contrast to the 'universal' remit of the hubs, In Harmony focuses resources more intensively on children in deprived areas, providing instrumental music and ensemble/orchestral playing, underpinned by a concern to ensure continuity and progression throughout the primary school phase, in a whole-school approach.

1.1.3 Findings from research into El Sistema and In Harmony

A recent review of research and other literature on programmes inspired by El Sistema worldwide (Creech *et al*., 2016) noted that evaluations were largely small scale and qualitative, but the authors found that evidence was supportive of the programme and identified a range of positive outcomes. These encompassed children and young people achieving musical excellence as well as social and emotional development, wellbeing, raised aspirations, academic attainment and membership of supportive social networks. The report also acknowledged some common barriers and challenges, including: sustaining children's enthusiasm and engagement after the first year of participation; preventing drop out during transition to secondary school; the need for teachers involved in the programme to receive development; and sustaining community engagement.

Within the UK, there have been two evaluation reports (GEN, 2011; GCPH *et al*., 2015) of the El Sistema-inspired *Big Noise Orchestra* located in Raploch – a deprived area of Scotland. While the authors pointed out that it was too early to tell whether the programme would have positive impacts on children's academic performance, employability or social cohesion, they reported increased school attendance among Big Noise participants. The authors concluded that Big Noise Orchestra offered a 'positive and unique' experience that was becoming an important part of the lives of children and their families (see GCPH *et al*., 2015). Similarly, a report by school inspectors (Education Scotland, 2015) found that 'a significant number of children and young people achieve exceptionally well through the Big Noise programme in Raploch' and identified innovative practice in teaching music that the inspectors recommended should be shared more widely.

Turning now to evidence about the In Harmony programme, an early evaluation of the pilot programmes (Hallam *et al*., 2011) highlighted the holistic nature of the provision (supporting not only children's musical progression, but their social wellbeing) and the potential of the programme to achieve social change. Lewis (2011) reported that the two participating

schools in Lambeth had improved their early years' attainment and argued that this could be attributed, in part, to the positive influence of In Harmony.

There have been several reports on In Harmony Liverpool (including Wilson, 2012; Burns, 2013; Burns and Bewick, 2013; Robinson, 2015 and Burns, 2016). Burns and Bewick (2013) reported on the fourth year In Harmony Liverpool. Although the authors point out the challenges of attributing positive outcomes to the programme, they did find evidence of a range of positive impacts on the children and young people involved.

> *We conclude that there continues to be strong evidence that In Harmony Liverpool is exceeding its expected outcomes and outputs. In Harmony Liverpool provides compelling evidence of a holistic and enriching musical education resulting in a positive impact on the personal, social, emotional and educational development of children and young people.*
>
> **(Burns and Bewick, 2013, p. 4)**

The sixth year of the Liverpool evaluation (Burns, 2016) drew similar conclusions, highlighting further evidence of good progress in academic attainment (measured by attainment at Key Stage 2), musical attainment (measured by non-examined equivalents to ABRSM grades) and children's perceptions of their social and emotional wellbeing (measured by survey responses). The report quotes one headteacher as saying:

> *The test results at Key Stage 2 are important this year as they prove that after six years of involvement in In Harmony, there is no negative impact on progress and attainment of allocating curriculum time to music. The fact that we are maintaining progress with attainment is an unbelievable thing.*
>
> **(Burns, 2016, pp. 1-2)**

Researchers have also studied particular aspects of In Harmony. For example, Robinson (2015) considered the contribution of families to In Harmony Liverpool. The study found that parents who took part in the research were contributing to the success of the programme through their own 'unqualified and active support of their children and the project on a daily basis' (page 2). Parents identified several ways in which In Harmony had 'transformed' their lives through giving their child new skills and opportunities, widening their experiences of spaces and places and giving them a new appreciation and enjoyment of music. In addition, Rimmer *et al*. (2014) identified parents' interest in the programme as a strong influence on children's perspectives of the cultural value of In Harmony.

A study of In Harmony Telford and Stoke (Rushton, 2016) focused on accessibility, inclusivity and impact for children with additional needs. It found that the programme provided alternative opportunities for self-expression and social communication for children who find verbal expression challenging. The aspects of the programme which contributed to this included the structure and predictability of orchestral music and the individual attention provided by In Harmony staff who helped children with SEN to find a positive role in the ensemble and integrate socially.

Previous NFER reports (Lord *et al*., 2013 and 2015; White *et al*. 2016) of the national evaluation of In Harmony at programme level across all six areas of England have echoed many of the findings reported above. The first interim report was based on an analysis of survey, provision and case-study data. It found early indications of positive effects on children's self-esteem, resilience, enjoyment of school, attitudes towards learning, concentration and perseverance. There was also some evidence of perceived impact on parents and families including raised aspirations for their children, increased enjoyment of music, confidence in visiting cultural venues, and increased engagement with school. The report acknowledged the early success of establishing In Harmony but cautioned that it represented a large investment for a relatively small number of schools and children.

The second interim report (Lord *et al*., 2015) was based on an analysis of survey and provision data. It found that In Harmony was continuing to support pupils' music-making, musical enjoyment, social wellbeing and positive aspirations for the future. However, there was an indication that the positive influence of the 'start-up' effect in the first year had waned, as children were slightly less keen to continue learning their instrument in a group in the future. A third report (White *et al*., 2016) found overwhelmingly positive views of In Harmony among seven headteachers in relation to its impact on their schools, pupils and parents.

1.2 About the national evaluation

1.2.1 Aims

The NFER longitudinal evaluation aimed to explore the impacts of the six In Harmony programmes in order to inform the future development of the initiative. The aims were to explore:

- the impact of In Harmony on children's social, emotional and educational development
- the nature and extent of impacts on families, schools and wider communities
- the extent of progress made by the different programmes in attracting investment to underpin future sustainability of In Harmony.

Appendix A presents the set of eight research questions which underpinned the evaluation.

1.2.2 Evaluation methods

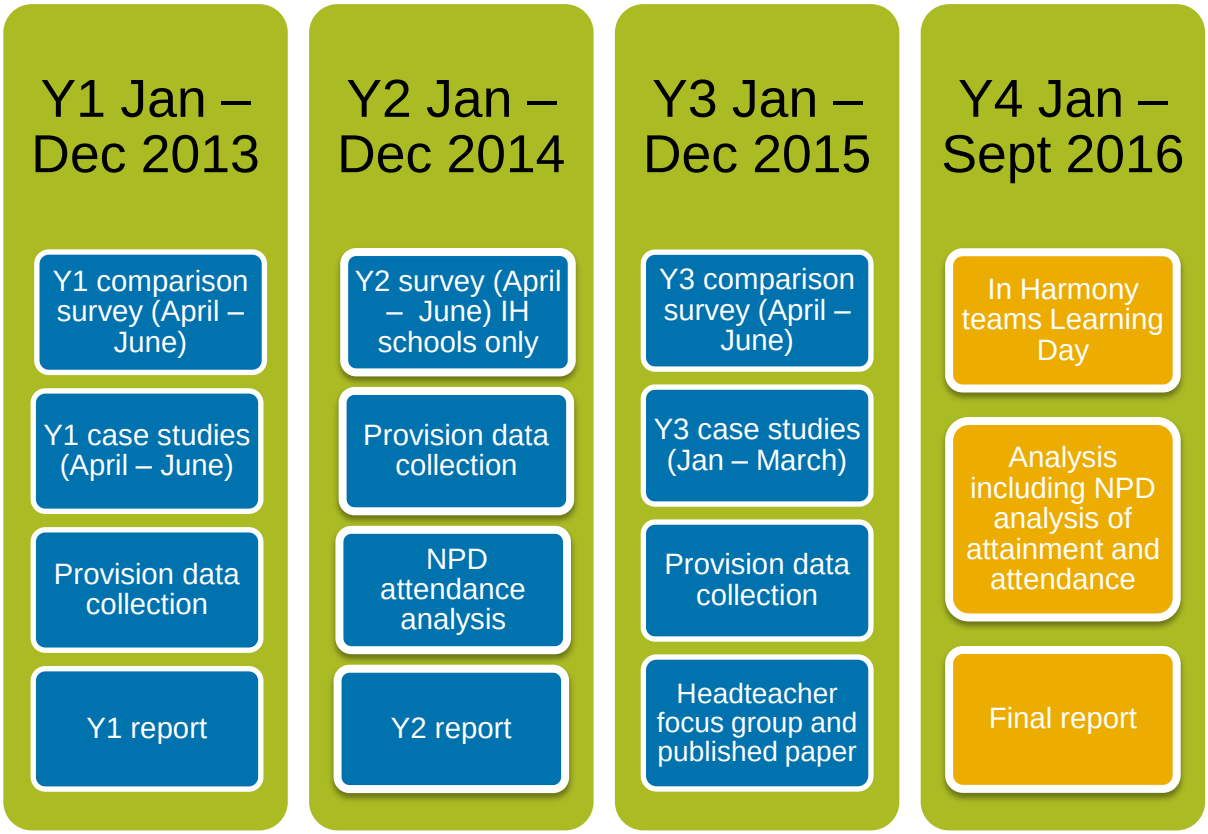
Figure 1 below shows the overall evaluation design. The evaluation included:

- a comparison group of schools with similar characteristics to the 2012 In Harmony schools.
- a series of questionnaires to explore children's perceptions of their social and emotional wellbeing, musical enjoyment and skills
- an analysis of provision data, to explore pupil-level participation, trends in curriculum and extra-curricular In Harmony provision, and whether differences in amount of provision affected pupil outcomes

- case-study visits to highlight participants' experiences and practice
- the collection of relevant programme documentation to help assess future viability
- an analysis of data from the National Pupil Dataset to assess the impact of the programme on key stage attainment in literacy and numeracy, and on school attendance.

The evaluation is underpinned by a Theory of Change for In Harmony (see Appendix A). The Theory of Change highlights the aims, strategies and outcomes to be delivered through the In Harmony programme in order to effect positive change in the lives of young people. The comparison group design ensured the analysis controlled for the effects of pupil- and school-level characteristics, by comparing In Harmony schools involved from 2012/13 with a matched sample of comparison schools.

Figure 1: Overall evaluation design



1.3 About this report

This report presents findings from the evaluation from 2012/13 to 2014/15. The next section (Section 2) presents information about the six In Harmony programmes and Section 3 describes provision and participation during curriculum and extra-curricular time.

The main outcomes are presented in Section 4, which includes information from pupil surveys, school performance data and interviews with children, parents, school and In Harmony staff. Section 5 presents key learning from In Harmony, including challenges and progress in securing future viability. Section 6 provides a discussion and conclusion, together with identifying the main implications from the evaluation.

The report also contains a number of appendices which provide details of the research questions, theory of change, case studies and statistical analysis.

2 About the six In Harmony programmes

2.1 Overall operating model(s)

As noted in Section 1.1.1, the six In Harmony programmes are managed in different ways – three by NPOs, two by music education hub lead organisations, and one through a partnership between a local authority and an NPO. The programmes have also varied in scale, depending on the number of schools involved in each area, from one school (in Liverpool, 2012/13) to four (in Nottingham, 2012/13). Programmes in Liverpool and Lambeth began in 2008. The four new areas (Nottingham, Telford and Stoke, Newcastle, and Leeds) started full provision in spring term 2013, although Newcastle and Telford and Stoke started some initial provision in the autumn term of 2012. While new schools have joined the programme in several areas, this study covers only those involved in 2012/13 and follows them through to 2014/15. The study also includes programme updates to 2016.

Programmes received core funding from DfE and Arts Council England, on a tapering model from 2012/13 to 2014/15. This meant the four newer In Harmony programmes each received £250,000 of grant funding in 2012/13, £150,000 in 2013/14 and £100,000 in 2014/15. The programmes that had been funded from 2008 (i.e. those in Liverpool and Lambeth) each received £125,000 in 2012/13, £100,000 in 2013/14 and £100,000 in 2014/15. Two grant extension years were awarded in 2015/16 and 2016/17.

Across the programme areas, children receive regular music provision during curriculum time, and each area also offers extra-curricular provision (Section 3 provides details on the amount of provision children received).

2.2 About each programme

There was no one single operating model for In Harmony. However, they cohered around the emerging principles and pedagogical approaches set out in Section 1.1 and described further in Section 5. This section contains descriptions of each of the six different In Harmony programmes. These were drafted by NFER, sent to each In Harmony provider for comment and revised in response to their comments.

2.2.1 In Harmony Lambeth

Lead organisation and orchestral partner: In Harmony Lambeth is led by Lambeth Council and collaborates with a number of partners including Southbank Centre. The Southbank Sinfonia is the key orchestral partner.

Schools involved: In Harmony Lambeth was launched in 2009. It operates in two primary schools in Stockwell, involving around 400 children in 2015/16.

Approach: Music provision includes children from nursery to Year 6. All whole-class and whole-school sessions are supported by class teachers and/or teaching assistants who learn an instrument alongside pupils. Younger children receive regular class singing and pre-orchestra sessions, whereas older children progress from percussion and recorders to stringed instruments. Sessions include: singing, musicianship, class orchestras, small group/individual lessons, after-school orchestras and chamber ensemble.

In addition to provision at school, all children are offered after-school instrumental learning and orchestral experience at *Nucleo North*, based in a local community hall and secondary school, operating five evenings a week. In Harmony Lambeth provides a mentoring scheme, regular performance opportunities, holiday concerts and invitations to attend rehearsals, masterclasses and performances by the London Philharmonic and Southbank Sinfonia. The after school programme is well attended, with ensembles at several levels, and offers the chance for older children to mentor the younger players.

Transition to secondary school: Young people who have attended In Harmony at primary school can continue to attend the after-school tuition and ensemble programme at Nucleo North which offers up to four and a half hours of provision per pupil per week. In Harmony Lambeth is working closely with the Music Education Hub to formalise progression routes for all children and young people who live in or attend school in Stockwell.

Community engagement and public performance: In Harmony Lambeth encourages community engagement through concerts, social evenings and a volunteering programme. It provides an after-school homework club in the community venue. Young people perform regularly in a range of concerts including performances with the Simon Bolivar Youth Orchestra, Beijing Symphony Orchestra, London Symphony Orchestra, Southbank Sinfonia, and recently at St John's Waterloo. Some children took part in an international Sistema residency in Canada in 2015.

Expansion plans 2016/17: There are plans to expand the after school programme to children and young people in Lambeth attending schools within 1.5 miles of Nucleo North. A third primary school joined the curriculum time programme in 2016/17. In Harmony Lambeth would like to expand vocal and orchestral provision to the South of the borough through establishing a 'Nucleo South'. There are also plans to increase the involvement of parents, carers and the wider community.

2.2.2 In Harmony Opera North Leeds

Lead organisation and orchestral partner: Opera North is the lead delivery and orchestral partner.

Schools involved: The programme has involved one primary school since its inception in 2013. In 2015 it expanded to a second primary school. In 2015/16 it reached over 650 children per week.

Approach: All children in Years 1-6 have up to three hours of musical activity per week during curriculum time, focused on singing, playing string instruments and playing in an orchestra. From Year 2 onwards, children learn to play a stringed instrument and take part in weekly group instrumental lessons and orchestra sessions. In Year 1 and Foundation Stage the children take part in musicianship and instrument preparation sessions. Children from both schools can also participate in after-school sessions, held twice a week. Structured music activities are offered during the Easter and summer holidays, including a focus on singing and drama as well as instrumental playing.

Transition to secondary school: Activity will begin in a local feeder secondary school in 2016/17 to provide continuation for children from the In Harmony primary schools. One after-school session per week is dedicated to secondary school age children.

Community engagement and public performance: The reach of In Harmony extends throughout the local community to include adults and older children. Workshops and outreach activities range from a community choir, to local Ceilidh events, to pop-up performances by musicians from the In Harmony programme and the Orchestra of Opera North in shops and living rooms. Children have regular opportunities to perform to family members in school and perform at least once per year with the Orchestra and Chorus of Opera North.

Expansion plans 2016/17: There are plans to increase the reach and scope of In Harmony and the number of young people engaging with the programme expanding in to a third primary school in 2016/17. This would increase projected numbers of pupils involved over 1,000 in 2016/17. Plans are also in place to work with a local feeder secondary school, and with an alternative education provision providing arts activity for 11- to 16-year-olds in the area that In Harmony Opera North covers. Community engagement is also a priority, which will be achieved through the Community Choir, adults attending Opera North Community Engagement activity, and provision for pre-school and early years.

2.2.3 In Harmony Liverpool

Lead organisation and orchestral partner: Royal Liverpool Philharmonic Orchestra (RLPO)

Schools involved: The programme started in one primary school in 2009, then expanding to include secondary-aged children once they had left primary school. In 2015, it expanded to include a second primary school and a large nursery school/family centre. There is also a community-based after school programme. Taken together, In Harmony Liverpool reached around 720 children and young people aged between 0 and 18 years during 2015/16.

Approach: All children aged two to four in the nursery school receive two hours of music provision per week. Responsibility for provision is shared between the In Harmony team and Nursery School teachers (supported by CPD). Weekly 'Tots In Harmony' sessions are available for parents/babies/toddlers in two community venues. In the primary schools, all children from Year 1 upwards access two group instrumental lessons plus orchestra rehearsals, musicianship plus whole-school singing sessions every week. Musicianship sessions for children up to Year 2 teach the basics of music theory through song, movement, rhyme and games. In Year 1 children choose a stringed instrument and access around four hours per week in curriculum time through to Year 6. In Year 5, pupils have the option of continuing with a stringed instrument or selecting woodwind, brass or orchestral percussion. In Years 3 and Year 4 children become part of String Orchestra, progressing to Everton Children's Orchestra in Years 5 and 6. Children in Years 2 and 3 access Everton Mini Strings, a weekly after-school ensemble. Children in Years 5 to 12 have also successfully completed Explore and Silver Arts Awards. Each year, participants have the opportunity to take part in a side by side rehearsal with the RLPO.

Transition to secondary school: Everton Junior Philharmonic (EJP) is an after school ensemble, available to any child in Years 4 – 7, rehearsing for a total of 2.5 hours a week. Everton Youth Philharmonic is an auditioned ensemble and programme, for children in Years 5 to 13, rehearsing for over four hours a week in a community-based venue.

Community engagement and public performance: In Harmony Liverpool has built relationships with parents, families, friends and the wider community in Everton. They have found the programme to have an impact on many families (Robinson, 2015). This is through regular performance opportunities for families to attend, as well as free tickets for events at Liverpool Philharmonic through its LEAP Into Live Music audience development programme. Families are also engaged through home visits and community based Tea & Tunes concerts. The programme is committed to ensuring that every single child engaged in the programme will perform/share their progress with parents/carers every term. The highlight of each year is the annual Birthday Concert, which features the children performing alongside musicians from the RLPO at Liverpool Philharmonic Hall. In Harmony Liverpool is a partner of the Sistema England Young Leaders programme, with 15 young leaders attending their residential programmes in Norwich and Shrewsbury. In 2015 the first In Harmony Liverpool young musician successfully joined Liverpool Philharmonic Youth Orchestra as an Associate Member, and two young musicians participated in National Youth Orchestra's Inspire Programme. Five young musicians attended the Sistema residency in Toronto in 2015.

Expansion plans 2016/17: Numbers will increase to 800 children in 2016/17. In Harmony Liverpool will review transition to progression routes available within In Harmony, through Liverpool Philharmonic, Music education hubs and other external partners. There will be a focus on enhancing performance opportunities, and the programme aims to increase the scope of the research, evaluation and dissemination strand of its work.

2.2.4 In Harmony Newcastle Gateshead

Lead organisation and orchestral partner: Sage Gateshead is the lead organisation and the Royal Northern Sinfonia is the orchestral partner. The In Harmony programme is also partnering with Music Partnership North (Music Education Hub).

Schools involved: In Harmony Newcastle Gateshead started work in 2012. The programme centres on one primary school where all children from all year groups are involved. In addition, there is regular involvement with a nursery next to the school and a children's centre. Over 400 pupils accessed provision in 2015/16.

Overall approach: Every child in the school is taught a woodwind, brass, percussion or stringed instrument by a team of eleven music tutors. The extent and frequency of In Harmony provision increases as children progress though the school. For Year 3 and above this entails weekly musicianship lessons, instrumental tuition, ensemble music and a weekly singing session during the school day. There are after-school opportunities five times a week, including an after school orchestra which the children can progress from to join West Newcastle Symphony Orchestra. Easter and summer holiday provision is available for pupils in Year 2 and above.

Transition to secondary school: The primary school continues to develop links with local secondary schools to support transition and enable pupils' continuation in music making. These schools have agreed to support pupils' continued participation in the after-school West End Symphony Orchestra and one secondary school now employs In Harmony tutors to deliver instrumental lessons.

Community engagement and public performance: In Harmony Newcastle Gateshead has established a partnership with the Clinical Commissioning Group and the Newcastle City Council Social Services and Culture team. It also provides volunteering opportunities for members of the community and Sage Gateshead participants, including placements for Sage Gateshead Higher Education students. In Harmony recently moved from Sage Gateshead's Learning programme, which leads music education programmes, into the Participation programme, which delivers music to children and young people who live in challenging circumstances in the north east and includes a Youth Music Fund C programme. This is enabling stronger links with Youth Music partners, participatory practice and pedagogy, progression routes and pathways for children and young people in the In Harmony programme. Public performances have taken place since the onset of the programme in a variety of settings including Sage Gateshead, Tyne Theatre and Opera House, other primary schools and in local community venues.

Expansion plans 2016/17: In Harmony Newcastle Gateshead has developed a 2025 vision for expansion and development. Key elements of this include further development of local community, arts and music partnerships to extend the number of people taking part and expansion into other schools

2.2.5 In Harmony Nottingham

Lead organisation and orchestral partner: The lead organisation is Nottingham Music Education Hub working with freelance professional musicians.

Schools involved: Initially In Harmony Nottingham was located in four schools. In 2014 the focus changed to encourage varying levels of engagement in a larger number of schools. Three levels of provision – gold, silver and bronze – were made available to schools which contribute 55 per cent of the total cost. Silver and bronze levels of provision were designed to bridge the gap between the intensive In Harmony 'Gold' provision and the Whole Class Ensemble Teaching (WCET) programme provided by the Music Education Hub. In 2015/16, the programme was operating in 16 schools (11 bronze, one silver, four gold In Harmony schools) and was accessed by over 1500 pupils.

Approach: In Harmony provision depends on the level of tuition a school buys into but entails members of MH staff, whole-class ensemble playing, and experience of working with professional musicians. Pupils in 'Gold' schools access up to 3.5 hours per week in school time. Those in 'Silver' and 'Bronze' schools access provision that is more intensive than standard whole-class-ensemble, with the amount of tuition per week depending on the size of school. There are different approaches in the four original IH 'gold' schools, with two schools learning brass instruments and two schools learning strings. The programmes are delivered by different In Harmony teams, each originally had has its own professional musician attached to it, but staffing this proved to be unsustainable, and the weekly involvement has been replaced by special visits by professional ensembles, working and performing with the IH students. There may also be school-staff led sessions in between IH sessions.

Transition to secondary school: Children from In Harmony schools are able to attend area bands, delivered in partnership with In Harmony Gold schools. Children can continue in these area bands when they go to secondary school, as well as progressing into the Robin Hood Youth Orchestra family. There is an annual music camp where children from schools across the city play together.

Community engagement and public performance: Children from In Harmony Nottingham take part in large scale performances in public venues with other Nottingham young musicians. Examples include the Great Orchestra Experiment with 1,500 young players, and a massed performance day with children from In Harmony and whole class tuition programmes.

Expansion plans 2016/17: In Harmony continues to be promoted to schools as part of a range of first access and intensive ensemble tuition programmes. Schools invest in the programme significantly and the number of schools is expected to grow.

2.2.6 In Harmony Telford and Stoke

Lead organisation and orchestral partner: The Culture and Wellbeing team in Telford are the lead partner and City Music Service. Stoke-on-Trent City Music Service are now the delivery partner for Stoke. The orchestral partners are the City of Birmingham Symphony Orchestra, Manchester Camerata and freelance professional musicians.

Schools involved: From 2012/13 two primary schools were involved, one in each area. In Telford, pupils from other schools can now access the after school 'nucleo' provision and a secondary school is also involved. The programme in Stoke-on-Trent has been moved from a primary school to a secondary school with delivery starting in September 2016. A total of 860 pupils accessed provision in 2015/16.

Overall approach: The new programme in Stoke-on-Trent will deliver to all Y7 pupils alongside their teachers. In Telford class teachers participate in curriculum provision and learn instruments alongside their pupils. Some teachers now have an active role in delivering tuition and leading orchestral sessions themselves. Old Park Primary school involves all its pupils in curriculum and after-school provision. The programme is reported to have had an impact on children with special needs (Rushton, 2015), and activities are differentiated to ensure their full participation.

Transition to secondary school: A secondary school in Stoke-on-Trent is now involved for 2016-17. There are plans to involve feeder primaries in the future. In Telford, Langley School offers after school music tuition to support pupils' continuation in music making and is also involved in a summer transition programme.

Community engagement and public performance: In Telford, parents are encouraged to support the programme and represent In Harmony regularly at events in the wider community. In 2016, pupils took part in visits to Italy, Sweden and Canada as part of the Sistema international programme, and in a large-scale celebration concert at the local secondary school. The programme is embedded in a wider scheme to use music as a core offer within the regeneration of wider catchment around the Malinslee priority ward.

Expansion plans 2016/17
Stoke will seek opportunities within the new delivery context led by City of Stoke music service. Telford is expanding its community based activity and secondary provision will continue in 2016/17 looking to set up a project steering group to support community capacity building. The programme is exploring new partnerships with orchestral leads. The programme is about to offer adult music making to parents and the wider community.

3 In Harmony provision in schools

Key findings

- Most In Harmony provision has been delivered in curriculum time – between three and four hours a week in school time across the 12 In Harmony schools.
- Most schools have involved all their year groups, although in one area children in key stage 1 have not generally taken part; and in a few schools children in Year 6 have not taken part.
- Between 2013/14 and 2014/15, the average amount of In Harmony curriculum provision per child has reduced statistically significantly (from 86 hours over the year, to 70).
- In Harmony programmes have increasingly offered extra-curricular activities in addition to curriculum delivery. Most children taking part outside of curriculum-time, have done so for a small number of hours (on average 40 hours spread over the year in 2014/15). However, some children have accessed a large amount of extra-curricular provision – over 100 hours in 78 cases; and 218 hours in one case.

The overall approach to In Harmony involves children in the whole school playing instruments together several times a week through whole-class, whole-school and other ensemble tuition and performance opportunities. However, the amount of provision in schools and whether offered solely in curriculum time or with extra-curricular opportunities as well, has varied between schools and across the evaluation period. In order to explore this, In Harmony programme managers and schools provided data to NFER for each term's provision, from autumn 2012 to summer 2015. The data comprised both curricular time and extra-curricular time, including any participation during the school holidays[6].

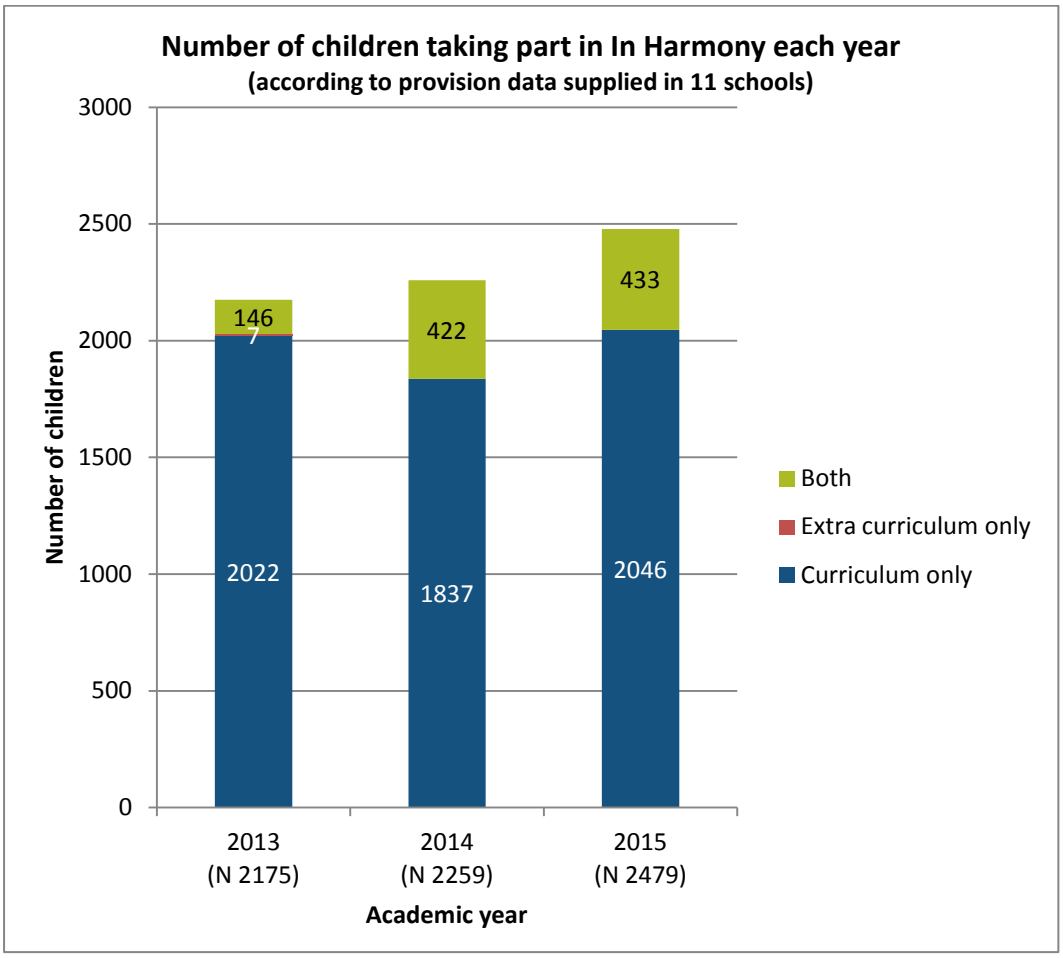
This section presents findings relating to the overall amount of provision at an individual level (Section 3.1), patterns in curriculum provision across schools and year groups (Section 3.2), and patterns in extra-curricular provision across schools and year groups (Section 3.3).

[6] We collected this data each term from the 11 In Harmony primary schools and one nursery school that participated in the national In Harmony evaluation from 2012 – 2015. Each term, we sent schools a data collection form, asking for the amount of provision per individual and year group. Schools provided curriculum-time data at year-group level where the whole year group took part together; they provided individual curriculum-time data where provision varied by individuals. Schools provided extra-curricular data at an individual level. The delivery data does not include In Harmony provision relating to visits to venues, family/community activity, youth consultation, or CPD and reflection.

3.1 Overall amount of provision at an individual level

We explored the amount of In Harmony provision children received over each academic year of the evaluation. Data is based on children who took part in In Harmony in 11 evaluation schools[7]. Figure 2 shows the number of children who received In Harmony provision each year, and whether they took part in curriculum-time provision only, extra-curricular time only, or both curriculum and extra-curricular time. As seen in Figure 2, the overall number of children taking part in In Harmony has increased since 2013, and the number taking part in both curriculum and extra curriculum In Harmony has increased over the years (including into 2015/16, which was beyond the evaluation data collection period and hence not shown here).

Figure 2: Number of children taking part in In Harmony

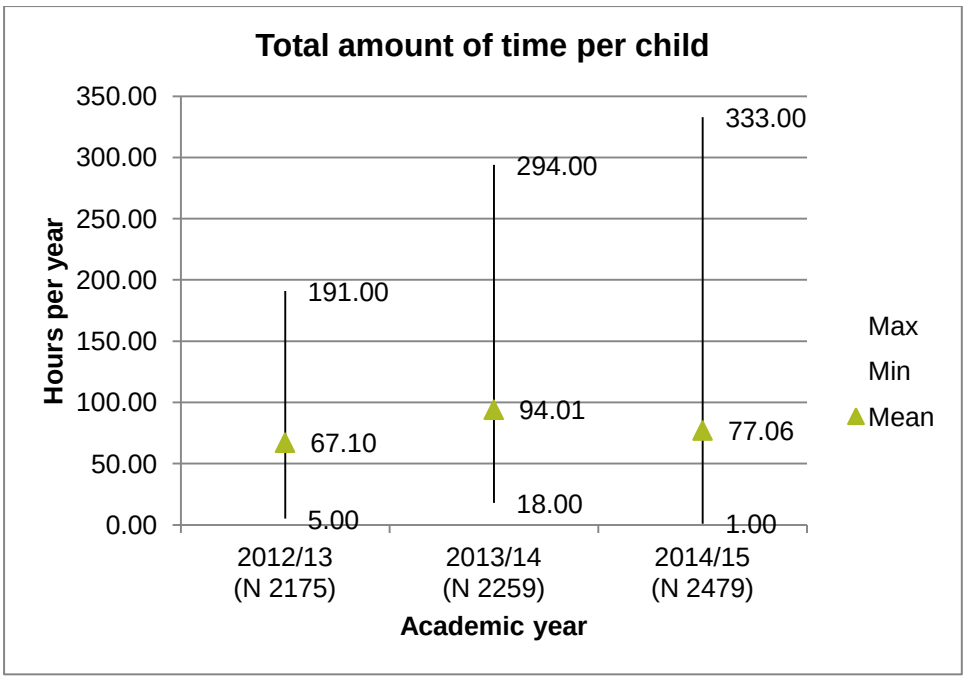


Source: NFER analysis of In Harmony provision data 2012/13 to 2014/15.

[7] We compiled the individual data file as part of the file for NPD modelling. The file is based on the number of identifiable children at an individual level from Reception to Year 6 (i.e. with names and dates of birth matched to the NPD) who took part in In Harmony in 11 of our evaluation schools. We did not include the nursery school (our twelfth evaluation school) in the individual level data file as NPD data is not available for these children.

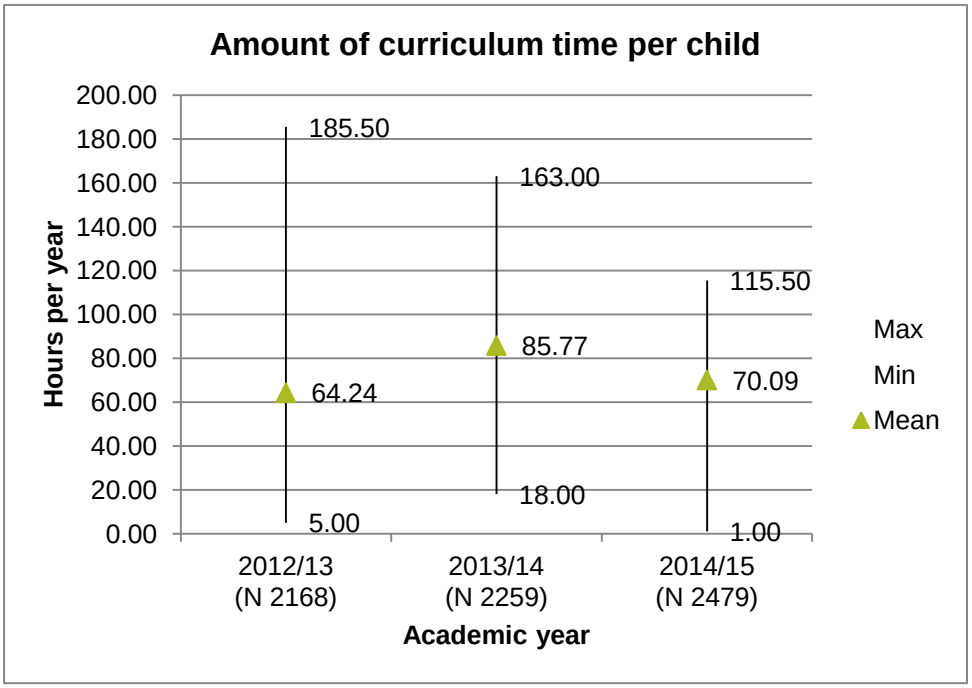
Figures 3 – 5 show the range in the amounts of provision children in In Harmony schools received – overall, and broken down by curriculum and extra-curricular time. Averages are also shown. At individual level across our evaluation period, children who took part in In Harmony have received varying amounts of provision. As can be seen from the three charts, the average amount of In Harmony provision increased from 2012/2013 to 2013/14, but reduced in 2014/15 (although not to the levels in 2012/13, when some In Harmony programmes were offering 'light touch' provision). Note that some children took part in a large amount of In Harmony activity (333 hours in one case in 2014/15). As can be seen in Figures 4 and 5, this was due to some children taking part in greater amounts of extra-curricular time in 2014/15.

Figure 3: Total amount of In Harmony time per child



Source: NFER analysis of In Harmony provision data 2012/13 to 2014/15.

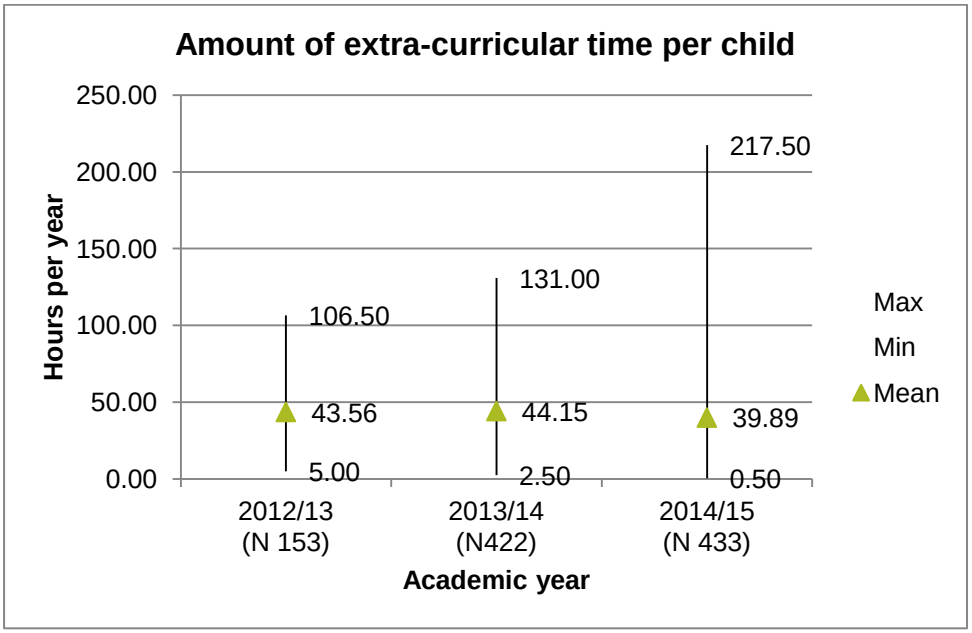
Figure 4: Amount of In Harmony curriculum time per child



Source: NFER analysis of In Harmony provision data from 2012/13 to 2014/15.

In terms of curriculum time, whilst the average amount of In Harmony provision increased from 64 hours in 2012/13 to 86 hours in 2013/14, it decreased to 70 hours in 2014/15.

Figure 5: Amount of In Harmony extra-curricular time per child



Source: NFER analysis of In Harmony provision data 2012/13 to 2014/15.

The average amount of extra-curricular time children have accessed has been more than half that of curriculum time. These were not necessarily the same children; but this indicates a substantial commitment to out-of-school hours provision.

In terms of extra-curricular time, whilst some children accessed a larger amount of In Harmony provision in more recent years (218 hours in one case), the average decreased slightly in 2014/15. Note that the median remained the same in 2013/14 and 2014/15, indicating that a larger number of children took part in smaller amounts of extra-curricular provision in the most recent year of data collection.

3.2 Curriculum provision – patterns at school and year group level

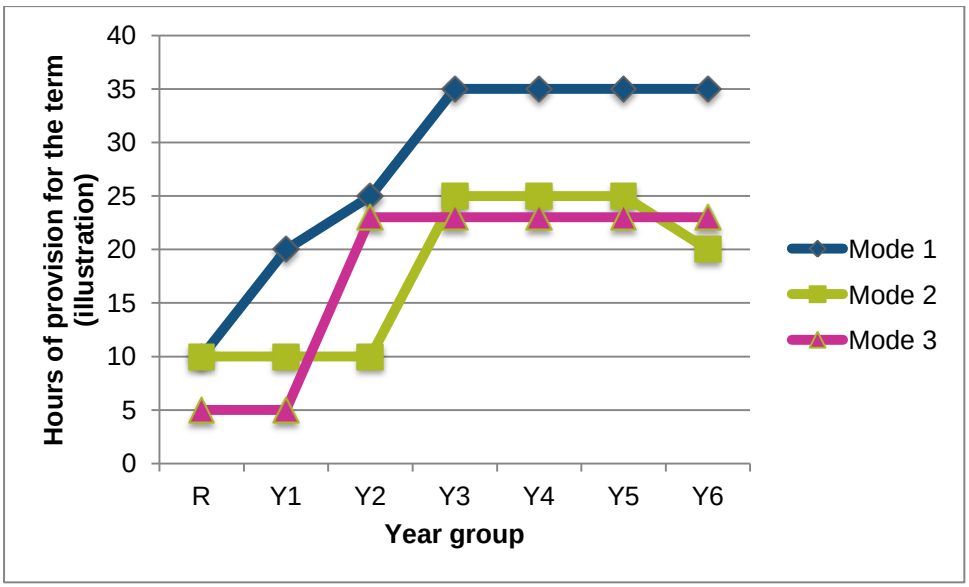
As seen in Section 3.1, most In Harmony provision has taken place in curriculum time. On average, In Harmony programmes offered between three and four hours a week of provision during curriculum time. This is greater than other whole class ensemble tuition (WCET) approaches, which is usually offered for around one hour a week over 33 weeks as part of music education hub provision[8]. That said, the amount of curriculum-time provision varied between the evaluation schools and across the academic years.

As noted in the second interim report (Lord *et al.*, 2015), some schools reduced their curriculum provision slightly in 2013/14 (for example, one school reduced its provision from 3.5 hours to three hours a week)[9]. At the same time, the nursery school increased its provision from one to six hours a week. In 2014/15 two schools with some of the highest levels of provision made reductions; although others increased their provision, particularly for younger year groups. The discussion below explores these year group variations.

In most In Harmony schools, all year groups have been involved in the programme, except in four Nottingham schools, where Key Stage 1 pupils did not routinely take part. Generally, older children have received higher levels of curriculum-time provision than younger children. However, in some schools, provision for Year 6 children has been lower – possibly to allow them to concentrate on other curriculum learning during Year 6 (when they take their Key Stage 2 assessments). Whilst in earlier years of the In Harmony programme, a few schools offered a consistent level (flat rate) of In Harmony provision across all year groups, in the latest year of data collection (autumn 2014 to summer 2015), no schools offered all year groups the same amount of time. In 2014/15 there were three main patterns or modes of provision across year groups (see Figure 6)[10].

[8] Furthermore, most children who receive WCET do so for one year (Sharp, 2015); In Harmony children take part in the programme over a number of years.
[9] In contrast, the nursery school substantially increased its provision in spring 2014, from one hour to six hours per week
[10] Note, the number of hours per term are given as an illustration (the actual amount may have been slightly more or less, and slightly different across the schools illustrating that mode).

Figure 6: Modes of In Harmony curriculum-time provision across primary schools (summer term 2015)



Source: NFER analysis of In Harmony provision data 2012/13 to 2014/15.

Figure 6 illustrates the three main modes of provision during curriculum time across year groups, using summer term 2015 data from 11 of the 12 schools (not including the nursery school).

- In four schools, younger children (typically Reception, Year 1 and sometimes Year 2) received less provision (for example less than 25 hours), whilst older children received more (for example 30 hours or more) (Mode 1).
- In five schools, younger children (Reception, Year 1 and Year 2) received limited or no provision, middle year groups (typically Years 3 to 5) received more provision (around 30 hours over the term), and those in Year 6 received less than their key stage 2 peers (Mode 2).
- In two schools, Reception and Year 1 children received a small amount of In Harmony curriculum provision (around six hours for the summer term), and the remaining year groups received the same amount (24 hours over the summer term 2015 for all children in Years 2 to 6) (Mode 3).

3.3 Extra-curricular provision

Over the course of the evaluation, In Harmony programmes have increasingly offered extra-curricular In Harmony activities in addition to curriculum delivery. In 2014/15 the majority of the schools involved in the evaluation (ten out of 12) offered regular In Harmony provision outside of curriculum time[11]. Key features included:

[11] Note that in the first year of the evaluation (2012/13), just three schools offered extra-curricular activity.

- Children from across all year groups were involved extracurricular In Harmony provision in 2014/15 – although older children were involved more so than younger children. In two schools, children from Key Stage 1 and Key Stage 2 took part; in five schools, children from across Key Stage 2 took part (but not key stage 1); and in three schools, children in Year 5 and Year 6 only, took part.
- In general, older children have accessed higher amounts of extra-curricular provision than younger children.
- Most children have accessed a small number of hours – both overall, and within schools. For example, in the summer term of 2015 46 children in School A took part in between five and 25 hours of extra-curricular In Harmony provision, and 12 children took part for between 26 and50 hours. A further eight children from this school accessed between 51 and70 hours of extra-curricular provision from In Harmony.

Appendix D provides further details about the amount of In Harmony provision in each of the 12 schools taking part.

4 Outcomes

The Theory of Change for In Harmony sets out the expected outcomes of participation, including that children will make greater progress compared with those from similar backgrounds in areas such as school attendance, wellbeing, attainment in literacy and numeracy and musical skills. Outcomes were also anticipated for parents in terms of better understanding of how to help their children to achieve their life goals, greater involvement in schools, and an improved sense of community.

Key findings

- There was quantitative and qualitative evidence that In Harmony engages with children from a broad range of cultural backgrounds reflective of the communities in which they are based.
- There was quantitative and qualitative evidence that children's musical enjoyment and skills are improved through involvement in In Harmony.
- Interviewees identified wellbeing as one of the strongest outcomes for children taking part, although there was no quantitative evidence from the pupil surveys that children's perceptions of their social and emotional wellbeing was enhanced through participation in In Harmony. This may have been influenced by relatively high scores obtained at baseline.
- There was no quantitative evidence that children who participated in In Harmony made greater progress at school. Participating schools improved their 'value-added' performance significantly during the evaluation period. Comparison schools improved to a similar extent at Key Stage 2, and more so than In Harmony schools in terms of children's progress at Key Stage 1 (though this difference reduced during the evaluation period and was no longer statistically significant in 2015). School interviewees were cautious about claiming that In Harmony was having a positive impact on attainment, but said it had enhanced children's skills for learning, such as confidence, concentration, communication and perseverance.
- There was no quantitative evidence and very little qualitative evidence of an association between participation in In Harmony and children's attendance at school.
- There was qualitative evidence that parents are proud of their children's musical achievements and this can lead to raised aspirations in some cases.
- There was qualitative evidence that in Harmony was associated with improved parental engagement with school.
- There was some qualitative evidence of In Harmony resulting in a stronger sense of community among parents, especially for those whose children take part in extra-curricular ensembles.

This section examines the extent to which In Harmony is achieving its expected outcomes. The findings are discussed in relation to the research questions agreed for the In Harmony programme by the evaluation steering group. It draws together quantitative findings from the pupil questionnaires (completed by children attending In Harmony schools and a matched comparison group of schools), In Harmony provision data, an analysis of data from the National Pupil Database (NPD) and qualitative data from case study visits to In Harmony schools and a focus group with headteachers.

4.1 Engaging with children from a variety of backgrounds

Research question 1: To what extent does In Harmony engage with children from all cultural backgrounds?

Overall, both the quantitative and qualitative evidence demonstrates that **In Harmony engaged with children from a broad range of cultural backgrounds and also includes children from disadvantaged backgrounds.** Although In Harmony was inclusive of all children during curriculum time, there was evidence across the six programmes in 2012/13 – 2014/15 that boys and children with Special Educational Needs (SEN) were less effectively engaged in extra-curricular In Harmony provision[12]. This may warrant further monitoring and exploration to address any specific barriers to participation for these children and to identify examples of best practice.

4.1.1 Quantitative findings on engaging with children from all cultural backgrounds

To explore whether In Harmony has engaged children from all cultural backgrounds we analysed the background characteristics of children attending In Harmony schools compared to all schools nationally. As well as cultural background, the study also considered: the extent of deprivation, as indicated by children's eligibility for Free School Meals (FSM); and SEN[13].

The analysis was conducted on school-level data as In Harmony is typically a whole-school programme involving all children in the school at some point (see Chapter 3 for further details on In Harmony provision).

Table 1 below displays the characteristics of children In Harmony schools compared to children in schools nationally. All 11 In Harmony schools included in the evaluation are located in urban locations.

[12] Although note that some In Harmony programmes had developed specific focused support for children with SEN (Rushton, 2016).
[13] Note that SEN is being replaced by Education, Heath and Care (EHC) plans from autumn 2014 onwards. All SEN statements must be transferred to EHC plans by April 2018.

As might be expected given the programme's focus on areas of deprivation, the analysis shows that In Harmony engaged with schools that had greater ethnic diversity and higher levels of socio-economic disadvantage than is typical of schools nationally.

Table 1: Characteristics of In Harmony schools and schools nationally

Characteristic		IH schools	Schools nationally	Significance of difference[14]
Ethnicity	% pupils of White or White British ethnic background	42.30	64.52	*
Ethnic diversity	Average no. of different ethnic groups	10.55	8.92	**
Language spoken	% pupils with English as an Additional Language (EAL)	17.64	10.68	NS
SEN	% pupils with a statement of SEN	10.64	13.04	NS
Deprivation	% pupils eligible for FSM	39.35	17.23	***

Sources: In Harmony school characteristics are based on figures from the National Pupil Database for 2013[15]. The characteristics of schools nationally are based on NFER's Register of Schools[16] using updated figures for 2013.

As shown in the table, the statistically significant differences between the characteristics of children In Harmony schools and schools nationally were:

- In Harmony schools had a statistically significantly lower proportion of children from a White British ethnic background and therefore a higher proportion of children from Black or minority ethnic (BME) backgrounds.
- In Harmony schools had a significantly higher average number of different ethnic groups attending the school.
- In Harmony schools had a significantly higher proportion of children eligible for FSM, which is in keeping with its focus on areas of deprivation.

It is also possible to investigate the characteristics of children in In Harmony schools taking part in school time and out of school hours. Participation in extra-curricular activities enables children to make greater progress in their individual and ensemble playing, but it is voluntary and therefore it is of interest to see whether the characteristics of children who chose to take part outside curriculum time were similar to those taking part during curriculum time.

[14] Throughout the report we have applied a significance level of 0.05. Where indicated, NS means not significant, * refers to a significance level of 0.05 or less; ** refers to a significance level of 0.01 or less; *** refers to a significance level of 0.001 or less.
[15] This analysis shows the comparison of pupil characteristics at school level in 2013. We chose to focus on the demographics of schools in 2013 as this was the point at which most In Harmony schools were selected and began the programme.
[16] NFER's Register of Schools is a record of all schools in England, Scotland and Wales which is updated annually based on national and publicly available statistics.

To explore whether In Harmony engages a representative and diverse group of children in extra-curricular music education, we analysed the characteristics of children who chose to take part in extra-curricular music activities compared to those who took part in curricular provision only[17]. Table 2 displays the results.

Table 2: Characteristics of children who participated in In Harmony curricular and extra-curricular provision in 2015

Characteristic	Curriculum only (%)	Extra-curricular (%)	N	Significance of difference
Ethnicity – White	71.99	58.89	255	***
Ethnicity – Black	11.53	22.63	98	***
Ethnicity – Asian	6.50	4.85	21	NS
Ethnicity - Chinese	0.34	0.46	2	NS
Ethnicity – mixed/other	8.36	12.70	55	*
EAL	20.09	27.48	119	**
SEN – no statement	22.14	17.09	74	*
SEN – statement	1.56	0.23	1	***
FSM	56.21	60.51	262	NS
Gender – female	46.53	58.20	252	***

Source: Participation data collected from schools, 2015. In 2015, a total of 2,046 children participated in In Harmony during curriculum time and a total of 433 children also participated in extra-curricular In Harmony.

The table shows that, of those children who participated in In Harmony extra-curricular activities:

- a statistically significantly smaller proportion were from White ethnic backgrounds and a significantly larger proportion were from Black ethnic backgrounds or were of mixed/other ethnic minority compared with children who took part during school time only.
- a significantly higher proportion spoke English as an Additional Language (EAL)
- a significantly smaller proportion had SEN (this was especially evident for children with statements of SEN)
- a significantly higher proportion were girls.

Note that the six programmes are based in deprived communities with widely varying demographic make-up in terms of ethnicity and this analysis is based on relatively small numbers of children who participated in extra-curricular In Harmony activities overall and smaller numbers still of children with each of these characteristics, so the findings need to be treated with caution.

[17] Participation in In Harmony curricular and extra-curricular provision was calculated based on participation data collected from schools. We used participation data from 2015 as this provided a greater number of participants in extra-curricular In Harmony provision to analyse.

These findings suggest that **In Harmony has effectively engaged children from a range of cultural backgrounds in extra-curricular music provision,** with higher than expected participation of children from BME backgrounds. In contrast (and perhaps against expectations), there was an under-representation among children from White backgrounds. It is possible that this finding may be related to differences between In Harmony areas, because In Harmony Lambeth has a well-established extra-curricular programme and a relatively high proportion of pupils from BME backgrounds.

As noted above, children with SEN and boys were under-represented in extra-curricular In Harmony provision. This is similar to trends identified in surveys of music education hubs, which found that both boys and children with SEN were under-represented in ensembles and choirs nationally (see Sharp and Sims, 2014; Sharp, 2015). These findings suggest that **In Harmony was following national trends for a lower participation of boys and children with SEN in extra-curricular provision**.

4.1.2 Qualitative findings on engaging with children from all cultural backgrounds

In Harmony and school staff who took part in interviews explained that the very nature of In Harmony as a whole-school music programme meant that **all children in the school – regardless of culture, religion, ethnic and socio-economic background – participated** at some point and had the opportunity to experience an inclusive music education during school time. Participation in In Harmony during school time therefore reflects the demographic of the school population.

It was not just the whole-school/whole-class nature of the programme that ensured In Harmony reached all children, but interviewees pointed out that the medium of music makes it accessible to children from different backgrounds. For example, staff from schools and In Harmony providers suggested that music is particularly accessible to children whose first language is not English. As one headteacher said:

> *Seventy-four percent of children come in with no spoken English. Twenty-two community languages are spoken in the Nursery but music is the same in every language – every child can join in*.

Despite this generally positive picture, some interviewees highlighted **culturally-specific barriers to music participation**. For instance, individual interviewees had found that Muslim children were unable to participate in extra-curricular music activities because they attended Mosque/Madrasa after school. In other cases, interviewees said that parents were not supportive of their children attending extra-curricular music activities because they were sceptical about the value of music education compared with other subjects such as maths and science. However, such comments were rare and barriers to participation tended to relate more to children's personal preferences, rather than to culturally-based objections.

Approaches to broadening engagement adopted by providers and schools included: differentiating activities and genres of music, offering additional music activities at lunch times and providing a welcoming environment for parents to enable them to see the benefits of music for their children.

Interviewees commented that In Harmony was also well suited to children with SEN because most children started from a similar skill base and this helped children with SEN to engage without being at a disadvantage to their peers. One teacher described this in the following terms: 'Every child was able to shine – not just those who are academically bright – those with SEN were able to shine. It was just inclusion.'

Rushton (2016) identified that the structure of orchestral music and individual attention from In Harmony tutors were important factors in effectively including children with SEN in In Harmony activities. However, isolated comments from those interviewed for this evaluation highlighted some of the challenges of engaging children with SEN in In Harmony. A few people suggested that In Harmony activities can present a particularly challenging environment for children whose conditions mean that they struggle with loud noises, being in a large group and/or activities that require extended periods of attention. Vignette 1 provides an example of how one In Harmony school addressed these challenges.

Vignette 1: Effectively engaging children with SEN in In Harmony

A headteacher explained that her school has a high percentage of children with SEN, particularly those on the autistic spectrum and with a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). She explained that these children can find the In Harmony environment challenging, particularly the noise levels and large group activities. She described various strategies that staff had deployed to ensure In Harmony is accessible to children with SEN, in particular taking a more gradual and staged approach to introducing children to the activities:

> *We try to do everything we can for them to be in the lessons. Some children find it really difficult to be in the room so we have a graduated approach; we start by just trying to have them in the room, maybe wearing ear defenders, sometimes playing, sometimes not. Sometimes we might get them to hold an instrument, then move onto getting them to play a bit.*

The school had also set up an additional creative ensemble In Harmony group as one of their strategies to engage as many children as possible. Children applied to join the smaller creative ensemble group and a different group of children were selected each term to extend the opportunity as far as possible. The group focused on creating their own piece of music which they performed at the end of term. The headteacher explained:

> *Often this group has a number of children with more significant SEN. They might not cope with orchestra, which is 70+ children in the room, but they can cope with the creative side. It's more about creating and less about following, but it does still help them to develop their teamwork skills.*

4.2 Enhancing children's musical enjoyment and skills

Research question 2: Are children's musical enjoyment and musical skills improved through involvement in In Harmony?

There is consistent evidence across both the quantitative and qualitative data to indicate that **children involved in In Harmony had higher musical enjoyment and musical skills** than children who did not experience the programme.

4.2.1 Quantitative findings on enhancing musical enjoyment and skills

To explore whether children's musical enjoyment and skills are assocated with involvement in In Harmony we constructed multi-level models, controlling for the effects of pupil- and school-level characteristics. The models compared the attitudes of children in In Harmony and comparison schools using a series of survey questions about music which were combined into consistently themed factors (see Appendix C for further details of the factor composition, scoring and analysis). Note that we were not able to assess children's musical skills and progress directly, so the evidence on skills reported here relies on self-report in surveys and also on interviews with children, parents and staff (reported in Section 4.2.2 below)[18].

There was a positive association between participation in In Harmony and children's perceived musical enjoyment and skills. Attitude scores for In Harmony children were significantly more positive than comparison children on three musical factors:

- Factor 6: musical enjoyment and achievement (statements included: 'I like doing my music' and 'I am doing well in my music')
- Factor 7: desire to play and/or continue playing a musical instrument in a group (for example, 'I am learning a musical instrument'; 'when I leave this school I want to play a musical instrument')
- Factor 8: desire to sing and/or continue singing in a group (for example, 'I sing in a group with other people'; 'when I leave this school I want to sing in a group with other people').

Table 3 below displays the average scores for each musical factor out of a maximum of ten points and shows that scores were higher (i.e. attitudes were more positive) for children in the In Harmony group compared to children in the comparison group in both 2013 and 2015.

[18] Musical progress has been measured by the programmes at various points and some programmes have reported success in ABRSM grade exams and Music Medals. For example, in 2015 Nottingham recorded 141 ABRSM grade exam passes and 256 Music Medals.

The differences in attitudes for the musical factors were statistically significant in the multi-level models that controlled for the effects of school and pupil characteristics (see Appendix E for the full details and the effects estimated using multi-level models).

Table 3: Children's attitudes to music: average factor scores

Factor	In Harmony		Comparison		Significance of difference between In Harmony and Comparison
	2013	2015	2013	2015	
Musical enjoyment and achievement	8.73	8.59	7.71	7.92	2013*** 2015***
Desire to play/continue playing a musical instrument in a group	8.43	7.78	5.60	5.44	2013*** 2015***
Desire to sing/continue singing in a group	6.00	5.35	5.00	4.64	2013*** 2015***
Total N	**878**	**1049**	**2430**	**1117**	

Source: NFER pupil questionnaires completed by children attending In Harmony schools and a matched comparison group of schools in 2013 and 2015.

There are a number of other points that are notable from this table. First, we find that children who took part in the survey (in both In Harmony and comparison groups) appeared to enjoy music, as indicated by the high scores for the first two attitude scales in particular.

Next, looking across the three factors, for both In Harmony and comparison groups, children's attitudes towards singing were noticeably less positive than they were towards playing a musical instrument. It is not clear why this is the case, although case-study evidence from some In Harmony schools suggests that while singing had a clear prominence in the activities to develop musicianship and to engage children initially, it had less emphasis than instrumental learning at a later stage in children's learning in some In Harmony areas.

Comparing 2013 with 2015, it can be seen that in 2013 (the first year of the In Harmony programme for most of the schools) children in In Harmony schools already had more positive attitudes to music on all three musical factors, than those in comparison schools. This could be because some In Harmony schools had high levels of engagement with music education prior to participating in In Harmony, which may have influenced schools' decisions to participate.

It is also likely that it was affected by some exposure to In Harmony because by the time the survey was conducted, In Harmony was already established in two areas (Liverpool and Lambeth) which had been participating since 2009 and children in the four new In Harmony areas were aware that they would be taking part in the programme.

Now considering differences between In Harmony and the comparison group, scores on the first two factors were highly positive for In Harmony children (in both years of the evaluation), with a marked difference in attitudes towards playing an instrument between In Harmony and comparison children. However, the difference in attitudes of In Harmony and comparison children measured by these two factors narrowed significantly between 2013 and 2015. Further analysis revealed that this was not the case for the newer in Harmony areas. When the two longest standing programmes in In Harmony (Liverpool and Lambeth) were excluded, the reduction in the difference in children's musical attitudes in In Harmony and comparison schools between 2013 and 2015 was no longer statistically significant. This indicates that the difference in attitudes between children in the new In Harmony and comparison schools has been stable over the evaluation period.

Further analysis (see Appendix E) also revealed that **girls' attitudes to music were significantly more positive than that of boys**. This is consistent with the finding reported previously that girls were over-represented in extra-curricular In Harmony provision and also with national trends on music participation[19]. This draws attention to the a need to explore the reasons behind boys' lower level of interest in music and whether there are any specific barriers to their engagement that In Harmony could address.

Extent of In Harmony participation and pupils' musical enjoyment and skills

In order to explore whether there was any relationship between children's attitudes to music and the extent of their participation in In Harmony, we added the amount of time that individuals had spent on In Harmony activities into the statistical models. We considered the amount of In Harmony a child had experienced as both a continuous variable of accumulated hours over the three-year evaluation period (ranging from 0 to 333 hours) and a categorical variable of hours per year (1-50 hours; 51-100 hours; 101-150 hours; 151+ hours) (see Appendix E for further details of this analysis).

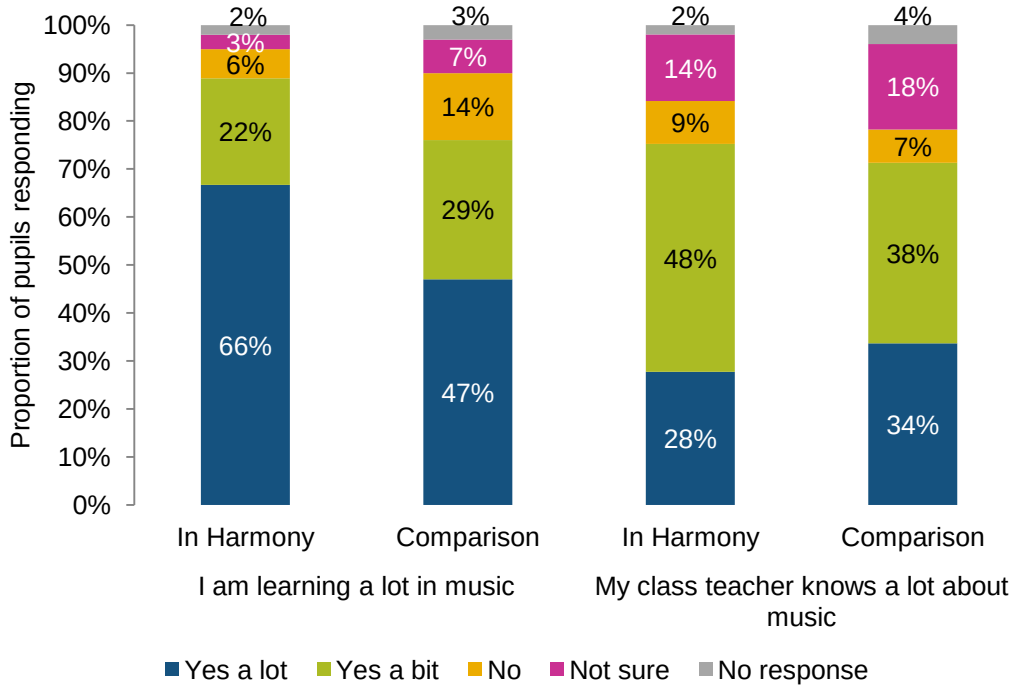
We found a **significant and positive association between the amount of In Harmony time children experienced and their musical attitudes**. This means that the more children experienced In Harmony, the more positive they were about their musical enjoyment and achievement; the desire to play/continue playing an instrument; and the desire to sing/continue singing in a group. This finding does not necessarily imply a causal effect of In Harmony on children's attitudes to music, as children with the greatest interest in music could have chosen to participate more during extra-curricular time.

[19] See Sharp and Sims (2014); Sharp (2015).

Children's attitudes to music: further quantitative evidence

In addition to the three music factors, the 2015 survey contained four further questions about children's perceptions of learning music. Figure 7 shows children's responses to two of these questions about perceptions of learning music.

Figure 7: Children's perceptions about learning music



Source: NFER In Harmony Evaluation - final pupil survey (2015)

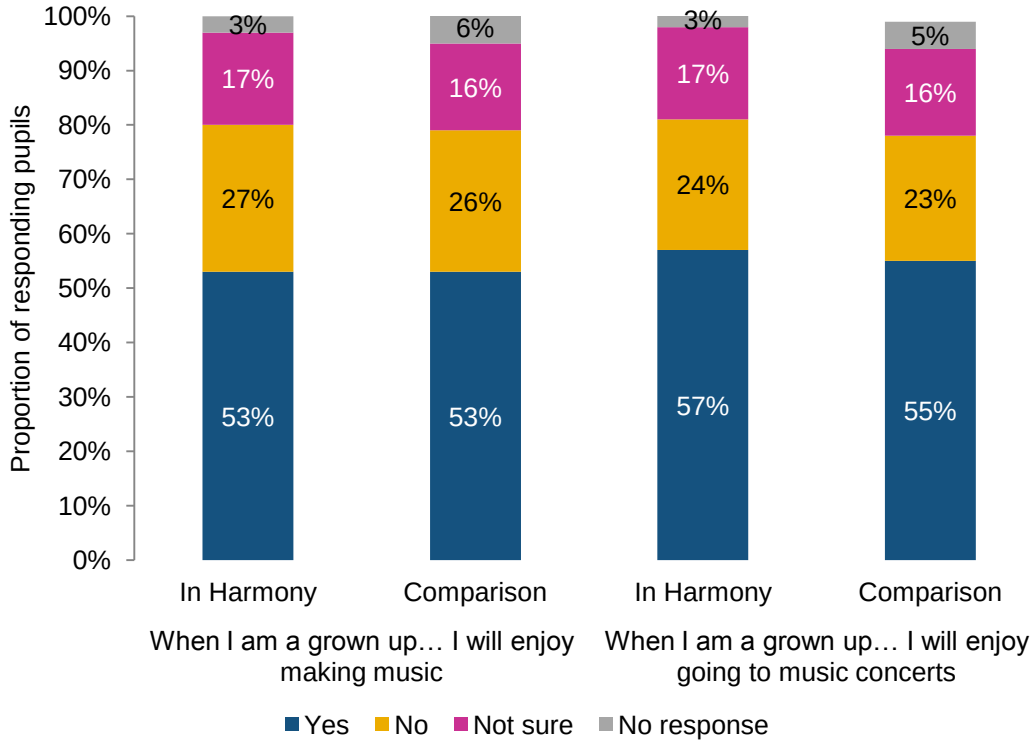
A total of 2,166 children responded (1,049 from In Harmony and 1,117 from comparison schools).

The figure shows that **In Harmony children were statistically significantly more positive than comparison children about how much they were learning in music** (88 per cent and 76 per cent, respectively, indicated that they were learning 'a lot' or 'a bit' in music). There was no statistically significant difference in the views of In Harmony and comparison school children about their class teachers' knowledge of music (76 per cent and 72 per cent, respectively said that their class teacher knew 'a lot' or 'a bit' about music).

These questions were also included in the 2014 version of the survey administered to In Harmony schools only (see Lord *et al*., 2015). Comparisons showed that In Harmony children's attitudes were less positive in 2015. In 2014, 94 per cent of In Harmony children said that they were learning 'a lot' or 'a bit' in music compared to 88 per cent in 2015 (this difference is statistically significant and remains significant when taking account of pupils' characteristics). In 2014 and 2015 the same proportion of children (76 per cent) responded that their class teacher knows 'a lot' or 'a bit' about music so there was no significant difference between 2014 and 2015.

Figure 8 displays results of two questions on engagement with music in the future.

Figure 8: Children's perceptions of engaging with music in the future



Source: NFER In Harmony Evaluation final pupil survey (2015)
A total of 2,166 children responded (1,049 from In Harmony and 1,117 from comparison schools).

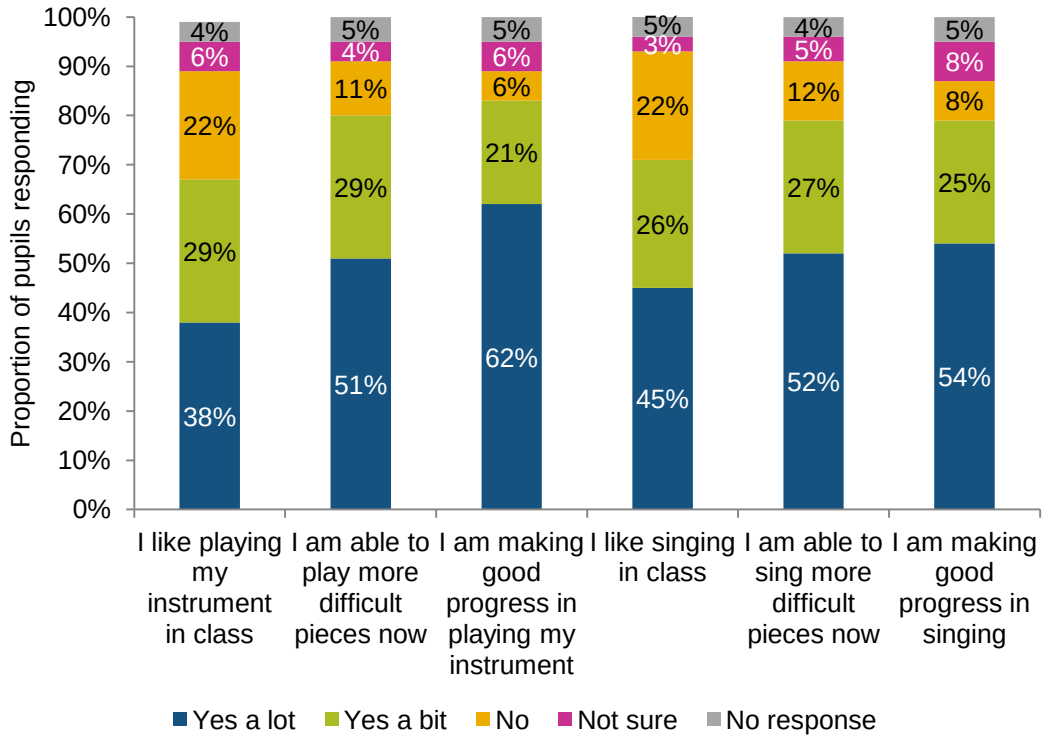
The figure shows that there was **no statistically significant difference in the responses of children in In Harmony and comparison schools in terms of their anticipated enjoyment of music as adults**. For both groups, around half of children anticipated that they would enjoy making music (53 per cent of both In Harmony children and of comparison children) and going to music concerts (57 per cent of In Harmony children and 55 per cent of comparison children) when they were grown up. It also shows that around a quarter of children in both groups did not anticipate that they would enjoy making music or going to concerts in the future and responded 'no' to these questions.

Looking back to the 2014 survey findings (for In Harmony children only, as comparison children were not surveyed in 2014), we see that children's scores on attitudes to music in the future were lower in 2015. The percentage of pupils who anticipated that they would enjoy making music was 57 per cent in 2014 compared to 53 per cent in 2015. The figure for children who anticipated that they would enjoy going to music concerts was 62 per cent in 2014 compared to 57 per cent in 2015. The reduction was statistically significant and remains so in a model that takes pupils' characteristics into account.

The 2015 survey also contained some questions for In Harmony children only, designed to gather more information on their musical enjoyment and progress.

Figure 9 displays children's responses to these questions.

Figure 9: In Harmony children's perceptions of their enjoyment and progress with playing instruments and singing



Source: NFER In Harmony Evaluation - final pupil survey (2015)

A filter question asked of 993 children who said that they played an instrument and 546 who said that they sang at school.

The figure shows that **the majority of In Harmony children enjoyed playing an instrument** (67 per cent) **and singing** (71 per cent) either 'a lot' or 'a bit'. That said, about a fifth of children (22 per cent) indicated that they did not like playing their instrument or singing in class – indicating that there was a minority of children who did not enjoy playing and singing even in In Harmony schools.

Children's enjoyment of singing was slightly higher than their enjoyment of playing an instrument. This is contrary to the factor scores reported above which indicate that children had a considerably higher desire to continue playing an instrument than continue singing when they left their school. Taken together, these findings could suggest that while children enjoy singing at school, they do not necessarily envisage themselves singing, or having the opportunities to sing, beyond primary school.

The figure also shows that **In Harmony children were very positive about the progress they were making in music**, particularly in playing their musical instrument, (83 per cent agreed 'yes a lot' or 'yes a bit' that they were making progress in playing an instrument) but also with singing (79 per cent said they were making good progress in singing either 'a lot' or 'a bit').

In general, In Harmony children's responses to these questions in 2015 were consistent with their answers in 2014 (there were no significant differences in their responses when taking account of pupil characteristics).

Except, in the case of progress in playing an instrument their scores were significantly lower in 2015 (87 per cent of children agreed 'yes a lot' or 'yes a bit' that they were making good progress in playing an instrument in 2014 compared to 83 per cent in 2015).

Overall, children's responses to these questions about music provide further support for the finding that children's **participation in In Harmony was associated with musical enjoyment and progress in musical skills**.

4.2.2 Qualitative findings on enhancing musical enjoyment and skills

We interviewed children, parents, school staff and In Harmony providers to understand their perceptions of the programme in more detail. Interviews conducted in 2015 augment the findings from previous interim reports (Lord *et al*., 2013 and 2015) in suggesting that **In Harmony was enhancing children's enjoyment and engagement with music; their musicianship; and their technical instrumental and vocal skills**. Interviewees also observed that children in In Harmony schools were making **rapid progress in musical skills**.

One of the main impacts of In Harmony reported by interviewees was that **children were enjoying music and engaging with music more than they had previously.** Group playing, performances and contact with professional musicians were identified as particularly enjoyable aspects. Teachers described how children were typically enthusiastic and focused during In Harmony sessions, even individuals who were noted as being disruptive and/or disengaged in other lessons. This impact was also observed by a parent: 'They're maturing so much. Music is fun, but it engages them. They're not bored, and not messing about – they genuinely want to do it'.

There was also evidence that some children were choosing to play musical instruments and sing of their own volition outside school. This included, children choosing to join In Harmony extra-curricular activities, playing for their parents and family outside of school, and exploring opportunities to continue their musical development at secondary school.

School and In Harmony staff recognised that not all pupils enjoyed In Harmony activities. Where this was the case, providers had tried to differentiate and broaden its appeal, by providing a greater choice of instruments and more varied genres of music.

Interviewees said that **In Harmony has helped children to develop their musicianship.** School and In Harmony staff, as well as children and parents, gave many examples of children developing their musical vocabulary; skills in interpreting music and discriminating sounds; developing tone and expression in singing; and ensemble discipline. One Headteacher of an In Harmony school explained how she felt the programme delivered a superior standard of musical education by involving professional orchestral musicians:

> *The programme is able to deliver a quality that we just wouldn't be able to do without the professionals – the technical language, the playing, the musical knowledge, the musical skill, playing with an orchestra, playing in an ensemble, the teaching expertise – all of the things we wouldn't be able to deliver at whole class level. So our children leave in Year 6 with a very sophisticated musical knowledge and skill base. In a musical sense the impact is tremendous and the progress that the children make is tremendous.*

Interviewees pointed out that children were exposed to a wide repertoire of music in In Harmony and as a result they were listening to, and playing, genres of music that they had not previously appreciated. In some cases this had challenged preconceptions of both children and parents, for instance, that orchestras only play classical music and that classical music is of no interest to them. As one Year 5 child explained:

> *Before, I thought classical music was a bit boring, but now that I play classical music on my cello, I think that it has really influenced me to become a composer myself and make my own classical music.*

Another positive impact mentioned frequently by interviewees was that **In Harmony had helped children to develop technical instrumental and vocal skills.** In particular, children had learned: how to hold their instruments correctly; the physical coordination needed to sing and play instruments; how to read music and follow a conductor.

Many interviewees felt that as a result of In Harmony provision, children were making **greater progress in music learning** than they would have done in the absence of the programme. Children explained how they were more confident singing or playing their instruments and taking on increasing challenges, such as playing more difficult pieces, composing their own songs and participating in performances. One girl in Year 5 outlined In Harmony's impact on her musical progress and confidence:

> *I have learned to play more difficult pieces, learned to play faster, with more notes, and do slurs in the playing. We did jazz and relaxed music, then really sharp and scary music.*

Children with a particular talent and interest in music were encouraged and their achievements were recognised in the form of certificates and medals. Some children were achieving formal music accreditation in the form of graded exams and some were progressing onto external non-In Harmony provision (such as area ensembles) and achieving Arts Awards. One In Harmony provider explained the benefits of the universal nature of the programme for identifying musical talent: 'Potentially skill and talent wouldn't have been discovered had they [the children] not taken part in In Harmony'. One father explained how this had helped his son:

> *It is a talent that was embedded in him. It was difficult for us as his parents to see what he could do. But now it has been exposed through playing music – we are so grateful to In Harmony.*

School and In Harmony staff had also noticed that children involved in In Harmony were achieving higher standards of music learning than they would have expected, as one teacher explained: 'They have developed skills. For primary-aged pupils, to be able to read music as well as play, is really impressive'.

Similarly, one of the In Harmony providers said: 'I'm seeing rapid improvements in musicianship and instrumental technique and marked difference in the speed of musical learning compared to non-IH schools'.

Vignette 2 provides an account of two children's instrumental progress.

Vignette 2: Children's enjoyment of music

Two Year 4 children, both aged 9 years, described their experiences of In Harmony. They were learning to sing, read music and play instruments. They practised pieces which culminated in public performances. One child explained that In Harmony provides: 'a fun way to learn; it's not hard to enjoy it, you automatically enjoy it. It's something to look forward to when you come to school'.

The children discussed how their musical skills had been improving since they started In Harmony: 'I couldn't even make a sound on the first day. I can play really fast now. I'm really good – I just struggle with the high notes sometimes'.

The children particularly enjoyed performances and described one performance at a prestigious venue in the city, where the whole school performed in front of families and other schools. One described the experience as: 'fun and scary; it was fun seeing everybody happy'. The other child added: 'We're learning… not just to play an instrument but to sing and to be confident to perform. I used to get stage fright but now I'm fine, because I'm used to it'.

4.3 Enhancing children's wellbeing

Research question 3: To what extent is children's wellbeing enhanced through involvement in orchestral music-making – especially in terms of developments in their social, emotional, health and lifestyle-related wellbeing?

The quantitative and qualitative evidence provides inconsistent findings on the impact of In Harmony on children's wellbeing. The quantitative evidence, based on children's responses to survey items, showed no association between attending an In Harmony school and children's enhanced wellbeing. Yet interviewees consistently argued that In Harmony had benefited children's social and emotional wellbeing. It is difficult to know why this might be the case. Possible reasons include: that the quantitative measures were not sufficiently focused on the areas of wellbeing identified by interviewees; that because interviewees were convinced of the merit of In Harmony this may have led them to over-report instances of well-being and attribute them to the programme; and/or that the wellbeing improvements noticed by interviewees had not sufficiently influenced children's survey responses, perhaps because they had not yet become sufficiently embedded or transferred from their

experiences in music . It is also possible that because most of the initial attitude scores were high, this left too little room to measure any improvements during the course of the evaluation.

4.3.1 Quantitative findings on enhancing children's wellbeing

To explore whether children's wellbeing was enhanced through involvement in In Harmony during the evaluation period, we constructed multi-level models controlling for the effects of pupil- and school-level characteristics. The model compared the attitudes of children in In Harmony and comparison schools as measured by a series of survey questions about wellbeing which were combined into five consistently themed factors focusing on aspects of social and emotional wellbeing.

There was no quantitative evidence from this evaluation of an association between participation in In Harmony and children's enhanced social and emotional wellbeing. There was no statistically significant difference between the attitude scores of In Harmony school children and comparison school children on any of the five wellbeing factors:

- Factor 1: Self-assurance, security and happiness (statements included[20]: 'I am a happy person'; 'I feel safe in school')
- Factor 2: Application of self to learning (for example: 'I try hard at school'; 'I like learning about things')
- Factor 3: Enjoyment of school and learning (for example: 'I like school'; 'My school is a friendly place')
- Factor 4: Outlook on life (for example: 'I worry about things'; 'I feel left out by children at school')
- Factor 5: View of future prospects (for example: 'When I grow up, I think I will have a happy life'; 'When I grow up, I want to carry on learning things').

Table 4 below displays the average scores for each factor out of a maximum of ten points and shows that scores were no different for children in the In Harmony group compared to comparison group in either 2013 or 2015. The differences in attitudes for the wellbeing factors remained non-significant in multi-level models that controlled for school and pupil characteristics (see Appendix G for the full details and the effects estimated using Multi-level models).

[20] Appendix C presents the full list of statements in each factor

Table 4: Children's attitudes to social and emotional wellbeing: average factor scores

Factor	In Harmony		Comparison		Significance of difference between In Harmony and Comparison groups
	2013	2015	2013	2015	
Self-assurance, security and happiness	8.93	8.84	8.85	8.82	NS
Application of self to learning	8.31	8.15	8.38	8.21	NS
Enjoyment of school and learning	8.52	8.31	8.52	8.38	NS
Outlook on life	4.60	4.48	4.65	4.66	NS
View of future prospects	9.09	9.05	9.03	9.09	NS
Total N	**878**	**1,049**	**2,438**	**1,117**	

Source: NFER pupil questionnaires completed by children attending In Harmony schools and a matched comparison group of schools in 2013 and 2015.

There are a number of further findings shown in the table. Firstly, for both In Harmony and comparison children, the scores on most of the factors were very high at both time points in the evaluation. This indicates that both groups of children were very positive about their social and emotional wellbeing.

Secondly, for both In Harmony and comparison children, scores on the 'outlook on life' measure were much lower than for the other factors. This indicates that views of both groups of children were rather negative on this aspect of their wellbeing.

Thirdly, for both In Harmony and comparison groups of children, their attitudes were consistently positive over the course of the evaluation (2013 to 2015). Indeed, as these wellbeing scores were so highly positive in 2013 there was limited scope for improvement on these scores over time. This was particularly the case for children's 'view of future prospects', although there was scope to detect improvement in children's 'outlook on life', yet this was not apparent in the results.

Extent of In Harmony participation and pupils' wellbeing

We also entered into the modelling analysis the amount of In Harmony that children had experienced to explore the relationship with their attitudes to social and emotional wellbeing. We considered the amount of In Harmony a child had experienced as both a continuous variable of accumulated hours over the three-year evaluation period (ranging from 0 to 333 hours) and a categorical variable of hours per year (1-50 hours; 51-100 hours; 101-150 hours; 151+ hours) (see Appendix E for further details of this analysis).

We found **no association between the amount of In Harmony that children experienced and their attitudes towards their social and emotional wellbeing**.

This means that children's scores on the wellbeing measures were not higher for those who had experienced greater amounts of In Harmony.

4.3.2 Qualitative findings on enhancing children's wellbeing

Despite the lack of statistically significant findings reported above, interviewees provided numerous accounts of the positive impacts of participation in In Harmony on children's wellbeing. Interviews conducted in the final year of the evaluation (2015) echo the findings reported previously (see Lord *et al*. 2013 and 2015), that many respondents perceived that In Harmony had helped children to develop confidence, self-esteem and a range of personal, social and emotional skills.

One of the main impacts of In Harmony reported by school and In Harmony staff as well as parents and children themselves, was on **children's confidence and self-esteem**. Children said that they felt a sense of pride and achievement in their musical abilities and had the opportunity to develop a new skill. One Year 4 child described his interaction with In Harmony teachers in the following terms:

> *It makes you feel confident; if we're shy they'll give us some advice to make us feel confident, they're good teachers, they help you communicate.*

Parents and teachers commented on the empowering nature of In Harmony in providing all children, including lower achievers, with 'opportunities to shine' and realise their abilities in other areas. As one teacher explained:

> *Less academic pupils often shine. They are often the first ones to volunteer and have a go. It gives them courage. They can shine in a different way, like leading the clapping, leading the songs*.

One parent described how her young daughter's confidence had flourished as a result of experiencing success in playing the violin:

> *It's helped her settle in. She didn't settle – she wouldn't talk, was very reserved and didn't want to interact with other children. As soon as she got hold of this violin, it was like she was at peace. She connects so well with it. Her face comes alive with the violin – she glows*.

Another parent described a similar impact on his son's confidence:

> [My son] *has always been quiet and he stammers. He wouldn't speak to the other children and so his communication wasn't getting any better. But, since the In Harmony project, he has so much more confidence in speaking. He has been transformed completely from this opportunity. He has confidence, he has courage, he is no longer in fear.*

Several interviewees described how In Harmony's ethos of enabling children to have a go at music without fear of judgement or failure helped children to have a more confident attitude and belief that they can achieve in other areas of learning and in their lives. One parent described this impact in the following terms:

> *Music is very forgiving. For a lot of children, the fear of getting it wrong puts them off maths and literacy. But In Harmony has taught them that even professional musician make mistakes, and that's OK. It has given them the permission to have a go, to go wrong, make a mistake, and nobody will recoil in horror or laugh at them. That filters through into other lessons – it makes them more willing to have a go.*

Parents and children particularly highlighted the importance of having opportunities to perform and celebrate their skills, which had reinforced children's experiences of success and pride in their abilities and helped them to develop confidence speaking and performing in front of others.

Another positive impact mentioned frequently by staff, children and parents was on children's **personal, social and emotional development**. They felt that children's communication skills, including listening and speaking, were enhanced by opportunities to interact with different music professionals and with teachers in a different environment. For those taking part in performances and extra-curricular activities, there were opportunities to socialise with children of different ages and from different schools which had led to opportunities for peer learning and for younger children to learn from older role models.

There were many accounts of how the interactive nature of ensemble music making had encouraged children's social skills, including how to support each other, cooperate, listen to each other and take turns. Headteachers involved in a focus group discussion (White *et al*., 2016) said that In Harmony promoted social cohesion as every individual has a role to play and a contribution to make in the orchestra/group music making. One headteacher described how it had affected her nursery-age children:

> *It has impacted on their personal and social development because they're taking turns, listening to each other, responding to routine, responding to different adults coming into the building*.

Interviewees also described the impacts of In Harmony on children's emotional skills, including managing their behaviour and emotions and developing perseverance and resilience. Several school staff identified improvements in children's behaviour during In Harmony activities and highlighted the self-discipline required to participate in a music ensemble. One Headteacher described this impact on children in her school:

> *There is calmness in orchestra; it's an environment that lends itself to those children who find it difficult to concentrate in other lessons. I'm seeing children giving their full attention and they're not losing it like they used to*.

Comments from two girls in Year 4 provided further elaboration of this impact. They described how playing music had helped them to manage their emotions and cope with anxiety in other areas of their lives. One of the girls said: 'You really look forward to it. In the morning I might feel really stressed but playing [music] might take it all off because it's really fun, you get to play with other people…'. And the other girl added: 'It feels like you're blowing all your worries away'.

A headteacher explained how In Harmony had helped children to be more willing to try new things and persevere to overcome challenges in learning in other areas:

> *Our children were very bad at giving up if they didn't get it right first time – they'd give up. There is definitely a difference now in terms of their resilience and sticking at it*.

The following vignette gives an example of how involvement in In Harmony had contributed to the physical and social wellbeing of a child with a physical disability.

Vignette 3: Enhancing children's wellbeing

One Key Stage 2 child and her mother described the impact of In Harmony participation on her wellbeing. As part of In Harmony, the girl played violin during curriculum time. She had a physical disability which meant that she found it difficult to hold a violin for extended periods of time so her teachers offered her the option of playing percussion in an after- school club, which she was particularly enjoying.

The mother explained how the In Harmony club had given her daughter more opportunities for social networking and making friends, including socialising with children of different ages and from other schools. The girl commented on the encouraging social atmosphere she experienced at the club: 'we're together so we can all help each other; it's more fun that way'. The mother explained how this experience had raised her daughter's confidence and helped her to feel more integrated and involved with her peers.

The mother also described how the experience of learning to play an instrument had helped her daughter to develop motor and listening skills, as well as perseverance and concentration, which she could apply to other areas of her life. She said: 'it creates an ethos for her; being able to focus, concentrate, work hard and practise'.

In Harmony had inspired this girl to continue playing music in the future. She said: 'When I grow up I want to be a singer. I want to learn to play the piano. In the future I'm going to carry on; it's quite inspiring'.

4.4 Enhancing pupils' achievement and attendance at school

Research question 4: Do pupils achieve better at school and attend more regularly than their peers in comparison schools not involved in In Harmony?

There was **no quantitative evidence that children who participated in In Harmony achieved better at school or attended school more regularly than their peers in comparison schools**. On the contrary, there was actually a negative association between In Harmony and achievement at Key Stage 1. While this could be interpreted as indicating that In Harmony has not (yet) led to improvements in children's attainment outside of music, the latter finding should not necessarily be interpreted as a causal effect, especially given the fact that most In Harmony

provision focused on children in Key Stage 2 rather than Key Stage 1 (see Section 3).

In contrast to the quantitative results, some interviewees argued that In Harmony can have a positive influence on some children's attitudes to learning and to school. They felt that this, in turn, could potentially lead to improvements in children's attainment and attendance in the longer-term.

4.4.1 Quantitative findings on enhancing pupils' achievement and attendance at school

To explore whether children's achievement and attendance at school were enhanced by In Harmony participation, we extended the analysis conducted for previous interim reports and outline below the findings on individual pupil attainment and attendance, using data from the National Pupil Database across the three years of the evaluation (2013, 2014 and 2015). We constructed the following multi-level models, controlling for the effects of pupil- and school-level characteristics, comparing In Harmony schools with a matched sample of comparison schools. The outcome measures were:

- attainment at Key Stage 1 (KS1)[21] – progress in attainment from Early Years Foundation Stage (EYFS) to KS1 Average Point Score, mathematics, reading and writing
- attainment at Key Stage 2 (KS2)[22] – progress from KS1 to KS2 Average Point Score, mathematics, reading, writing and Grammar, Punctuation and Spelling
- pupil-level attendance measures in 2013, 2014 and 2015[23].

We also considered whether the results were influenced by the amount of In Harmony received per pupil[24] for attainment and attendance measures[25].

Appendix E provides further details of this analysis.

Progress in attainment at KS1

Overall, there was evidence of a statistically significant negative association between participation in In Harmony and children's progress at KS1. Children in In Harmony schools made significantly less progress between EYFS and KS1 than children in comparison schools (for Average Point Score, maths, reading and writing). There were no statistically significant differences between the attainment levels of children in the In Harmony and comparison groups at reception age. So, despite starting at similar points in reception, children in In Harmony schools made

[21] A total of 4683 pupils were included in the KS1 attainment model (including 1299 from In Harmony schools and 3384 from comparison schools).
[22] A total of 4,074 pupils were included in the KS2 attainment model (including 1,072 from In Harmony schools and 3,002 from comparison schools).
[23] A total of 29,793 pupils were included in the attendance model (including 8,065 from In Harmony schools and 21,728 from comparison schools).
[24] Based on participation data collected from schools.
[25] A total of 4,683 pupils were included in the KS1 participation model and a total of 4,074 pupils were included in the KS2 participation model.

less progress between EYFS and KS1 than those in comparison schools. This is not to say that children in these schools did not make good progress, but rather that children in the comparison schools made greater progress and the difference, though small, was statistically significant after controlling for the effects of other characteristics known to affect children's attainment.

When analysing KS1 attainment in schools over time, we see that Average Point Scores for children in both In Harmony and comparison schools improved significantly each year from 2013 to 2015. This may help explain why some of the headteachers we interviewed felt that In Harmony had led to improved attainment in their schools (see following section) even though the findings from the quantitative analysis did not support this.

Further analysis revealed that the negative association between In Harmony participation and children's progress at KS1 is mainly driven by a substantial negative association in 2013. When we ran a model that estimated separately the association with In Harmony in each of the three years, the association was negative and statistically significant for 2013, then it decreased in 2014 (although remaining statistically significant) and finally disappeared in 2015 (indicating that In Harmony children were making as much progress from EYFS as comparison children at this point). Hence the analysis indicates that the initial negative association with participation in the programme reduced over time to a point when it was no longer statistically significant in 2015.

Progress in attainment at KS2

There was no quantitative evidence of an association between participation in In Harmony and progress in attainment at KS2. There was no statistical difference in the progress made by children between KS1 and KS2 in In Harmony schools and those in comparison schools either overall or in any of the national curriculum assessments. Children taking their KS2 assessments during the evaluation period (i.e. in 2013, 2014 or 2015) had very similar levels of progress between KS1 and KS2 whether they were in In Harmony or comparison schools.

When analysing KS2 attainment over time, we see that the Average Point Scores for both In Harmony and comparison children improved significantly from 2013 to 2015.

Attendance at school

There was no quantitative evidence of an association between participation in In Harmony and children's attendance at school. We found no significant difference between the absence rates of children in In Harmony schools and those in comparison schools at any time point.

Absence rates in primary schools are typically low, although in both In Harmony and comparison schools, the average overall absence rates were slightly above the national averages over the same period (2013, 2014 and 2015). The average overall absence rate fell in both In Harmony and comparison schools, during the course of the evaluation. This decrease in overall school absence rates is in line with national trends which were attributed to a decrease in absence due to illness (see DfE, 2016).

Extent of In Harmony participation and pupils' achievement and attendance at school

We found **no statistically significant association between the amount of In Harmony participation[26] with either progress in attainment at KS1 or KS2 (Average Point Scores) or attendance measures**. This means that KS1 and KS2 attainment and attendance outcomes did not vary depending on the amount of In Harmony that children have received.

4.4.2 Qualitative findings on enhancing pupils' achievement and attendance at school

As might be expected, most of the heads and teachers we interviewed were **cautious about asserting the impacts of In Harmony on raising achievement in their schools** due to the difficulty of attributing progress in attainment to any one initiative. Some also said that this was not a primary expectation of In Harmony. However, others felt that In Harmony had made a positive contribution to children's engagement and skills for learning which had already translated into improved learning outcomes in some cases and could be important in the longer-term.

As discussed in the previous section, interviewees reported that **In Harmony helps children to develop a range of skills for learning** including confidence, concentration, discipline, communication and perseverance which can be applied in other areas of learning. As one teacher said:

> *We are seeing knock-on effects from using music with children who don't normally engage within the classroom. They're starting to engage, talk, play instruments.*

Similarly, a Year 5 girl said:

> *When you go into In Harmony, it's all about focusing and trying to get everything right. So it helps you to learn to focus on other things as well… on other school work. You get to play an instrument and it makes school more enjoyable.*

School staff also noted a positive influence on children's skills of counting and rhythm and listening skills and pointed out that there were cross-curricular opportunities to use music in other curriculum areas, such as learning about history and cultural contexts through song lyrics which could help children's knowledge in other lessons.

In a few cases, headteachers said that In Harmony had contributed to improved attainment, especially in literacy. One headteacher identified the following impact of In Harmony on children's EYFS results:

> [In Harmony] *has had an impact on their communication and language skills - listening and responding to instructions. In 2012, for communication and*

[26] For this analysis, amount of In Harmony was measured as an accumulative continuous variable from 1 to 333 hours and also as a categorical variable with four levels of hours of participation per year (1 to 50 hours; 51 – 100 hours; 101-150 hours; 151 hours or more). The analysis is based on participation data collected from schools.

language, 84.5 per cent of children were at or above their expected level of development. By the summer of 2014 it was 89 per cent.

Comments of this nature resonated with those made by some headteachers in the focus group discussion (White *et al*., 2016) who suggested that improvements in their assessment results had coincided with the introduction of In Harmony.

Few interviewees identified an impact of In Harmony on children's attendance at school. This may be because there were only isolated issues with poor attendance in the schools and therefore more limited scope to attribute any difference to In Harmony. Some interviewees did, however, mention the effects of In Harmony on children's attitudes to school more generally in terms of improving their enjoyment of school and offering a motivational 'pull factor'. This is illustrated in Vignette 4 below.

Vignette 4: Encouraging a child to want to come to school

One teacher explained how In Harmony had impacted positively on a Year 6 boy who had a record of poor attendance and was persistently late at school. His attendance was much better after he started to take part in In Harmony. The child's teacher felt that he had been more inclined to attend school because he enjoyed his music so much. She explained that whereas in the past, someone from the school often had to go and fetch the boy from home: 'Now, he's [just] a little bit late. Now, he loves his music. He knows that if he's not in school he's not going to get to do his music'.

The following three sections report on In Harmony's influence on parents and the wider community, drawing on qualitative data from interviews with parents, children, school staff and In Harmony providers. Our previous evaluation report (Lord *et al*, 2015), highlighted the aspiration among school and In Harmony staff that the programme would have a positive impact on their relationships with parents. In common with findings from a study of parental engagement with In Harmony Liverpool (Robinson, 2015), the interviews conducted by NFER in 2015 confirmed that parents were proud of their children's musical achievements and this had led to other positive outcomes in some cases, including enhancing aspirations for their children, improving engagement with school and wider social/community engagement.

4.5 Enhancing parents' expectations and aspirations

Research question 5: Does involvement in In Harmony help parents/carers to have high expectations for their children and to feel able to help them realise their aspirations?

The main impact of In Harmony reported by parents was a sense of pride in their children's musical achievements. They also appreciated their children's how much their children's musical skills had developed over time. There was some evidence of raised aspirations for children's future and the parents we interviewed

gave examples of how they were supporting their children's musical aspirations. There was also some evidence of a widening of parents' own horizons associated with their involvement in In Harmony.

Parents' appreciation of their children's achievements was particularly strong when they saw their children perform in public. As one parent said: 'Every parent attends every concert. It's lovely to see your child playing in an orchestra. What better feeling than when you have got a video and pictures?'

Another parent explained the emotional impact of hearing children perform as part of an ensemble:

> *When they play in a concert it's pretty mind-blowing, you find it hard to believe that your child is part of that, you only hear that tiny bit, but they put all those tiny bits together and all of a sudden it's a concert*. *You don't realise the impact that will have, at the Albert Hall they did the whole theatrical performance, all the [School name] parents were up on their feet, they were the loudest in the place – so they obviously appreciate it*.

Parents' pride in their achievements was a very important source of motivation for children, as one Year 5 girl explained:

> *My mum kind of over reacts and hugs me a lot after the concert. They don't stop talking about it for a long time. It makes me feel nice. When I'm upset, I remember that they really love it when I play. At In Harmony, if I think something is difficult, I think about playing in a concert and that if I give up, my parents aren't going to feel like that anymore – so I can't stop – I have to keep going. It encourages me even more if they feel that proud seeing me play at the concert.*

Parents appreciated the opportunity for their children to develop their musical ability. They felt that this was not necessarily something that would have happened without In Harmony, as one parent of a nursery-aged daughter explained: 'If In Harmony wasn't there, I don't think I would have brought music into her life, but now music has started at that age I can't wait for her to be able to play an instrument.'

For some parents, witnessing their children's interest in music provided an opportunity to see 'another side' of their personality, as one said: 'For me to see her being so alive – it's a good feeling for me. I don't get to see that through her writing or talking or her communication, but I see it through her music.'

Parents also appreciated the extent of their children's musical development over time. It can be a challenge for parents to support their children through the early (often discordant) stages of learning an instrument, as several of our interviewees acknowledged. However, parents appreciated the progress their children had made since they first started learning to play, as one mother said: 'It is great seeing the difference in her musical skills, for example now her posture is really good and she knows how to hold her notes. She has come a long, long way.'

As highlighted in previous research carried out in In Harmony Liverpool (Robinson, 2015), there were many examples of parents actively supporting their children's musical development, through encouraging them to practise, attending performances, praising their achievements and/or through purchasing music and instruments. As one boy said:

> *My parents really encourage me to practise whenever I can because I want to be a musician when I grow up. Sometimes on a weekend, I find practising a bit boring because I just want to relax and have fun, but my parents say I have to practise.*

There was some evidence of In Harmony encouraging parents to have high aspirations for their children's future. Although several of our school interviewees pointed out that parents did not necessarily have low aspirations for their children, others felt that involvement in In Harmony had raised parents' expectations. One headteacher said:

> *Certainly for parents of children who are really into In Harmony, it's opened up a world that they probably didn't know was there – the world of performance, university, playing alongside professional musicians. Definitely, there's no doubt it's raised aspirations because it's given people a glimpse of something different and the potential for the future. A lot of our parents are very vocal about appreciating that*.

A few of the parents we interviewed also mentioned an impact on their aspirations for their children. One mother living in a very deprived area described how In Harmony had helped address her concerns for her daughter's future:

> *I was looking out and dreading what my kids could end up growing up like – what trouble they could get up to what things they could be using – it petrified me. Now, I'm thinking – she can play the violin, she might be able to do this, that and the other, it's given the opportunity to keep her away from the other things in life that you're petrified your kids could become or do. I'm enjoying parenting a bit more now. There's hope for her.*

School staff had observed an impact of In Harmony on children's aspirations for the future. They reported how In Harmony had provided children with opportunities to visit different areas, places and people that they would not otherwise have experienced. One Teaching Assistant described how she felt In Harmony had broadened children's horizons by exposing them to different experiences:

> *In Harmony is a fantastic opportunity that I feel these children would never get. It's not stopping their boundaries. Certain children are stuck in* [the locality] *but I feel In Harmony has opened their eyes to the bigger, wider world ...and it let them know that they can go and play the trumpet or be a doctor when they're older.*

The profile and venues of performances and contact with professional musicians were two key ingredients for creating this kind of impact, as one teacher described:

> *For many of our kids, they don't go out of* [the locality] – *they do now. To actually get across the water, to perform in* [high-profile venue], *it's blown their minds to see what's out there.*

Some of the children we interviewed said they had been inspired by their experiences of In Harmony to see music as a potential career. One Year 6 pupil said he intended to continue learning his instrument in the extra-curricular music club when he left the primary school. He had identified music as a possible career: 'Before, I never thought that I could get further in the music industry. Now I think I could go into the music industry'.

In a few cases, In Harmony was reported to have expanded parents' own horizons, most commonly by encouraging them to engage with a wider repertoire of musical genres. One parent said: '[My daughter] has started to listen to a broader range of music and I have started to listen to that sort of music as well – it's broadened my tastes – I understand this sort of music more'. Another described attending a performance of the Simón Bolívar Symphony Orchestra organised by In Harmony: 'It was not my type of music, but now I understand it… I went to the trip to London and met the guys from Venezuela and I really fell in love with that type of music.'

There was also evidence that In Harmony had widened parents' experiences through travelling to different cultural venues to see their children perform (see also 1.7 below). One headteacher described the impact on parents as follows:

> *They have more confidence that they themselves could actually have a better life – so they might start looking for a job, looking to support the community. For example, parents have taken their children to London for In Harmony and they had never been on a train before.*

The following vignette provides an example of how a parent gained a qualification and employment through her contact with In Harmony.

Vignette 5: How In Harmony helped a parent to enter employment

A mother began to accompany her child to In Harmony music sessions at the school. The school is located in one of the most deprived wards in the country and serves a multicultural community. The mother had learned English as an additional language and was from a cultural background which was not necessarily supportive of women working outside the home.

After attending for a while she volunteered to help at the In Harmony sessions. She enjoyed the experience and so, with the support of the school, she decided to train as a Teaching Assistant and completed a course at a local college. She is now employed as a Teaching Assistant in another local school.

4.6 Improving parental engagement with school

Research question 6: To what extent is parental engagement with school improved as a result of involvement in In Harmony?

There was consistent evidence from the interviews that In Harmony was associated with improved parental engagement with schools. Staff from schools and In Harmony as well as parents themselves suggested that In Harmony encourages greater parental engagement with the school (involvement in In Harmony 'trips' is discussed further in the following section).

Several school interviewees said they had experienced increased parental involvement as a result of In Harmony. They commented that some parents had an aversion to school due to their own negative experiences as children, but noted that parents were more likely to engage with their children's school through attending In Harmony events. In this way, interviewees felt that In Harmony has helped to combat a 'them and us culture', as one headteacher explained:

> *We've always found it is difficult to get parents across the school door [even though] we are a really inclusive school – but now, we have more parents coming into school because of In Harmony. It has always felt like a community, but more so because of In Harmony.*

Similarly, a teacher from another school said:

> *Parents are more than willing to come along on trips and help support – they buy tickets for concerts ... there seems to be a change in ethos in things that require a financial commitment from parents. They're not any richer round here – socially, it's not much different – the only difference is that as a school, In Harmony came in.*

One school offered sessions for parents to make music alongside their children. Some of these parents then took up an offer of a phonics workshop designed to help parents support children's reading. In this way, the In Harmony approach acted a positive 'gateway' experience, as the headteacher explained:

> *In Harmony gives them a non-threatening way to come in… I know that more parents are attending the parent workshops in school – because their confidence has increased – so that impacts on their children's learning because parents are coming to maths workshops, literacy workshops. That school phobia has decreased, for some of them.*

4.7 Developing a sense of community

Research question 7: Does In Harmony help parents to develop a stronger sense of community?

There was some evidence of In Harmony resulting in a stronger sense of community among participating parents. This was particularly the case for parents whose children took part in extra-curricular ensembles. Many interviewees referred to the friendly, 'family' feel generated within In Harmony, whereby people of different ages (including teachers) were encouraged to learn and perform together. Similarly, area-based ensembles enabled children to work with others from different age groups and schools.

Parents often accompanied children on trips, which helped build and reinforce social relationships within the group. Some suggested this encouraged an enhanced sense of pride and participation in the community through parents attending local cultural venues they would not otherwise have had the confidence or inclination to visit. As one parent said: 'A lot of parents, in the past, would not have made the effort to take their kids somewhere… But now, more of them are making an effort – they see the benefit of it.'

Although most of the discussion of social impact focused on participating schools, children and parents, a few interviewees mentioned wider community benefits. One such benefit was that offering positive activities outside school time kept young people from being bored and getting involved in anti-social activities. One In Harmony interviewee commented:

> *It keeps a lot of kids off the street hanging around doing nothing or potentially getting into trouble. A large percentage of parents are working every hour – they're very dedicated but they don't have a lot of time.*

Some of the six In Harmony areas were involved in specific activities which extended beyond the schools and parents directly involved in provision at school. In one area, In Harmony staff had also introduced themselves to a community choir that used the same rehearsal venue, which resulted in some of the In Harmony children accompanying the choir at a public performance. One of the projects has a particular focus on health, especially building resilience and mental health. As a result of In Harmony, the school decided to buy in a music therapy service from the In Harmony provider, using Pupil Premium funding.

A few interviewees reported that In Harmony was starting to become a source of enrichment and pride among local residents more widely. One parent explained:

> *The school is known for In Harmony; it is seen as a draw. It has certainly promoted the school. Unfortunately, this is a deprived location as people keep referring to it … so this has really made people think better about the school and the area. My youngest child can't wait to start because she wants to play like her sister. It gives the kids a chance to get what kids in wealthier families get.*

In relation to wider community engagement therefore, the evidence suggests that In Harmony has been successful in providing parents with a common interest that brings them together both at the school site and also in other settings to watch their children perform. This commonality and shared interest has the potential to be capitalised on further by schools and/or other community groups and may be expected to grow in future as In Harmony works with greater numbers of children and their parents.

5 Key learning

Key findings

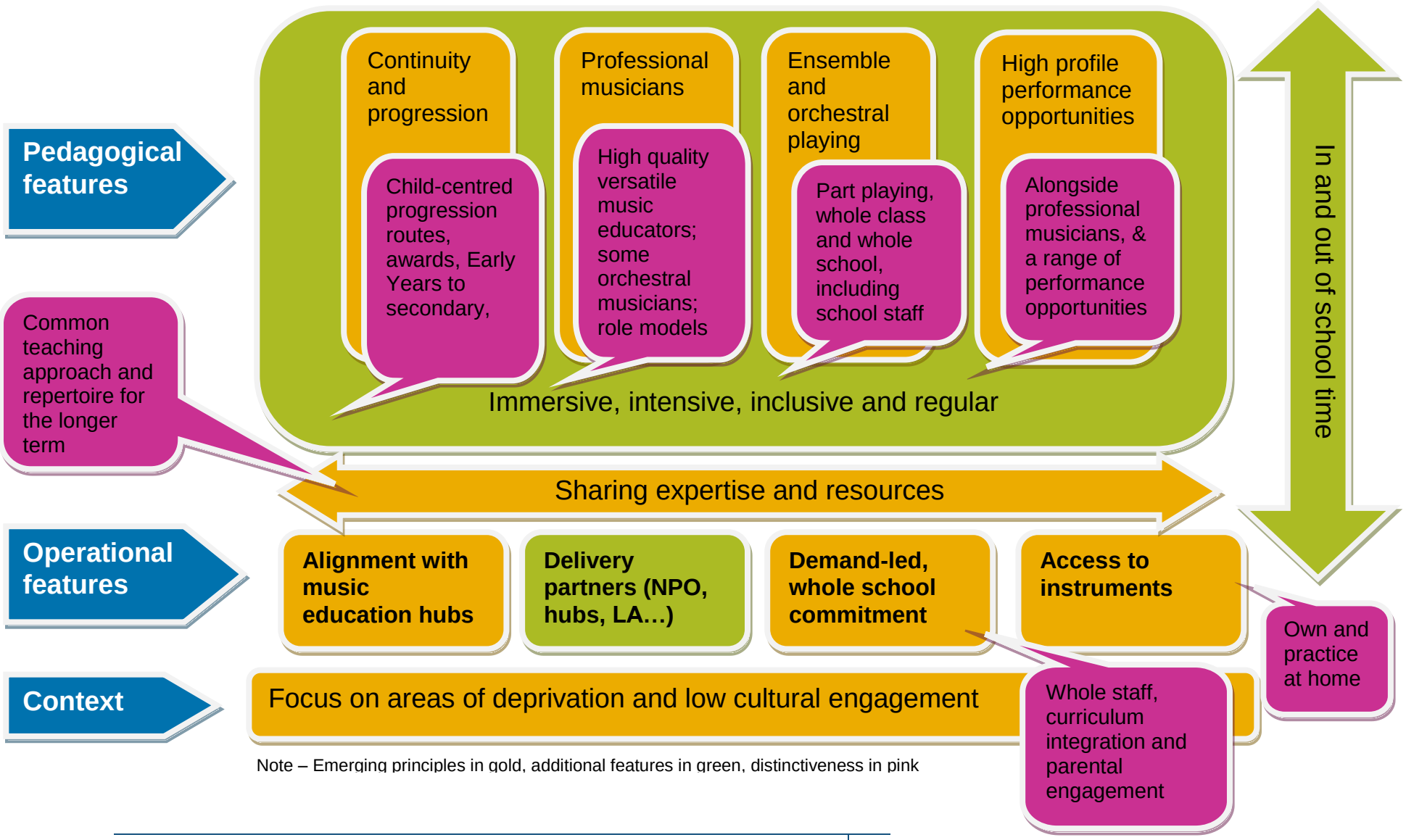
- A number of operational features appear to be important to the successful delivery of In Harmony. These include the commitment from NPOs and music education hubs to deliver the programme, together with a whole-school approach that integrates In Harmony into each school's ethos and curriculum.
- In Harmony is more than the sum of its parts. Its distinctive pedagogical features include: high quality versatile music educators and role models; ensemble and orchestral part playing where individual and team responsibility are equally balanced; inclusive and high-profile public performances; a child-centred approach to continuity and progression; and regular tuition and practise.
- A number of In Harmony programmes have integrated In Harmony within music education hub and city music delivery models. Most offer continuation for secondary-age pupils, and several have expanded provision to other primary schools.
- In Harmony programmes will need to continue to: build progression and transition routes; develop greater synergies between delivery organisations and music education hubs; support workforce development and capacity building; increase parental and community engagement; and develop longer-term funding models. Programmes will need to continue to balance expansion with resources.

This section discusses the distinctive and enabling features of In Harmony, organised around the emerging principles that surfaced across the In Harmony projects (Section 5.1); and how the programmes are addressing challenges and future viability (Section 5.2). In this section we have drawn on data from case-study interviews conducted in 2014 and 2015, a focus group conducted with In Harmony school headteachers in October 2015, and a Learning Day workshop for In Harmony programme staff and practitioners in February 2016.

5.1 Enabling and distinctive features of In Harmony

As highlighted in the first interim report (Lord *et al*., 2013), we found In Harmony to be an intensive learning programme where the discipline of orchestral music-making, ensemble part-playing, the involvement of a professional orchestra and the whole school were pivotal to its implementation. However, we also reported that In Harmony was 'more than the sum of its parts' (p.vi, p.31). Or, to put it another way, the combination of its features appeared crucial in its approach. Arts Council England identified a set of principles relating to In Harmony from early evaluation reports (as highlighted in Section 1). The evaluation team explored these further and referred to them in case-study interviews with project directors/managers in autumn 2014 and a focus group of headteachers in October 2015.

Figure 10: Enabling features of In Harmony



Note – Emerging principles in gold, additional features in green, distinctiveness in pink

The emerging principles have helped to build a collective understanding of the features of In Harmony. In so doing, they have also allowed the programmes and the evaluation to pinpoint the key effective ingredients of In Harmony – focused on pedagogies that appeared to distinguish it from other forms of music education. Figure 10 shows how the enabling features of In Harmony inter-relate. We have organised the principles (shown in gold) into those that are about context and operational elements; and those that reflect the pedagogy and the nature of music-making within In Harmony. We have included a number of additional operational and pedagogical features (shown in green). The annotations (in pink) show how In Harmony programmes and headteachers view the distinctive ingredients of In Harmony.

5.1.1 Contextual and operational features

As highlighted in Section 4.1, In Harmony programmes take place in **areas of deprivation.** Programme managers and directors viewed In Harmony as a targeted programme, focused not only in areas of economic disadvantage, but also in areas of cultural deprivation or where arts participation is low. As one programme director said: 'it is a targeted intervention in an area of deprivation and low arts engagement – this is key for us'. In addition, participants mentioned related issues faced by local communities, including a lack of opportunity. As one music tutor put it: 'families haven't been exposed to the choices that other children might have' Health issues were also a major concern in some of the In Harmony programme areas, as one director said:

> *We have lots of children with mental health issues, suicidal tendencies, and we are working with those children in these areas. I think In Harmony has to be targeted [in these areas].*

Another interviewee felt that being able to target the programme to areas of deprivation allowed In Harmony to play a wider supportive role for families:

> *In Harmony is extraordinary because of the contexts in which it operates – if it was an orchestra in a middle class school, it would be nice – here it's special.* [Child's name] *can't carry his double bass home and there's nowhere to practice at home – so we support him. That's what In Harmony is set up for: deprived areas.*

Given the focus on deprived areas, it is important to ensure that children have **access to instruments**. In Harmony provides children with their own instrument, and although this is resource intensive, it means all children can practice at home. In general, children value their instruments and take good care of them. In one programme, children chose their instrument case and took care in making a name tag for it. One parent said this meant 'it was their instrument – it really got them to take ownership of it'. Another parent spoke about how her daughter's sense of care had transferred to other areas of home life as well:

My daughter has a lot of respect for her instrument – it's not a toy. It's given her a sense of pride and responsibility. I've noticed she treats things differently at home as well – she recognises the cost and value of things.

One of the key operational elements of In Harmony is the need for **total commitment from schools and delivery organisations** – described by In Harmony programme leaders as a 'true and total partnership' or 'total school commitment' at a learning workshop in 2016. For delivery organisations, this includes the development of child-centred and holistic pedagogies and a commitment to longer-term learning programmes and progression routes (see sections 5.1.2 and 5.2). For schools, the commitment and whole-school approach means that In Harmony becomes embedded in its daily activities and integral to its identity. One headteacher said: 'In Harmony pervades every part of our school life', and another explained: 'It's woven into the fabric of what we do, it's normal, it's what we do'.

To establish this approach, In Harmony and school staff have worked together to establish **teaching in teams in partnership with school staff**. In Harmony and school staff have also integrated In Harmony across the school curriculum, so that in many schools music has become embedded into other areas of learning. School interviewees stressed that In Harmony was not a 'bolt-on' activity; and programme staff felt In Harmony enriched the curriculum. One example (also reported in White *et al*., 2015), entailed joint lesson planning related to the First World War anniversary, resulted in children performing *The Last Post* while their classmates planted poppies in the school field. This cross-curriculum, **immersive** and embedded approach, involving joint planning on all aspects of the programme made it distinctive from other music teaching in schools.

Whole-school commitment has also given In Harmony a high status within schools, as one music tutor described: 'You can see that the children are throwing themselves at it because everybody else is doing it'. It has also acted as a leveller and removed any concerns about social exclusion for children choosing to learn an instrument, as one music partner explained: 'the whole school is doing it together, so immediately that barrier is taken away'. In addition, the whole-school approach sees children and teachers from across the school accessing the programme. This means children learn alongside teachers, and alongside children from other classes and year groups – which again, is different to other forms of instrumental tuition including WCET (this is discussed further in Section 5.1.2).

As the In Harmony programme has progressed and become embedded, **alignment with music hubs** and **sharing of expertise and resources** have become increasingly important to its operation. All In Harmony programme staff we interviewed saw alignment with music education hubs as beneficial for two-way sharing of music resources and developing progression pathways. Some In Harmony programmes had built close relationships and delivery approaches with hubs, for example to develop co-delivery by music service staff and professional musicians. One In Harmony programme had developed a consistent pedagogical approach and repertoire across the music education hub, including using the same musical scores and software to create musical parts in both its hub and In Harmony offer.

In another area, the In Harmony programme was fully integrated within the hub programme and its network of ensembles. A team teaching approach within some of the In Harmony programmes – whereby a team of music tutors from across an NPO drew on the same pedagogies and resources – was reported to be working well.

It is worth noting that in 2012, the involvement of professional orchestras was a requirement for In Harmony programmes. However, the role of the orchestra has evolved since then, with very few professional orchestral performers delivering activity regularly. Cultural partners contribute in other ways including offering inspirational visits, play-alongside opportunities (see the centrality of performance opportunities noted in Section 5.1.2) and performances in schools. Cultural partners also spanned other art forms, for example, opera in In Harmony Opera North Leeds.

5.1.2 Pedagogical features

One of the emerging principles of In Harmony is that it involves **professional musicians, ensembles and orchestras working with schools**. As shown in Figure 10, we have separated the features within this principle in order to examine the distinctive role of the music educators, and the pedagogies involved in the ensemble and orchestral approach. This reflects how In Harmony programme staff and headteachers described the distinctive features of In Harmony.

The musicians involved in delivering In Harmony are **high quality versatile music educators** and some also perform professionally. Their role and pedagogical approach are key aspects of In Harmony. Headteachers described the 'calibre of the tutors as fantastic' and felt they brought 'something special to the way they delivered sessions' (White *et al*., 2015). They noted the musicians' musical approach to teaching, for example by singing instructions when addressing the class; and the emphasis on orchestral discipline in their pedagogy, and observed that this had a positive impact on children's learning. In Harmony practitioners described themselves as 'reflective, versatile musicians', and felt these were key qualities to continue to develop in order to support the **child-centred pedagogies of In Harmony**. Teachers and children spoke about how some of the professional musicians acted as role models and mentors – again, reflecting the **holistic approach to teaching and learning in In Harmony**.

The **ensemble approach** in In Harmony was also felt to be distinctive. In some In Harmony programmes, children within a class/year group learn the same instrument and a similar part within an orchestral arrangement. They then have the opportunity to experience how all the parts of an orchestra come together in weekly orchestral rehearsals, culminating in public performances. In other programmes, children within the same class learn different instruments in order to form an ensemble (for example, a string orchestra) from one class. This ensemble and orchestral approach encourages children to support each other in their section, and develop listening skills. As one music tutor put it: 'The key difference between In Harmony and other forms of music tuition is that the kids are really driven by being part of an orchestra – it's a team'.

All interviewees highlighted the **centrality of performance opportunities** within the In Harmony programme. Headteachers contributing to the focus group discussion described these opportunities as the 'glue that binds In Harmony together'. Performing alongside professional musicians inspired and engaged children, as one headteacher said: 'There is something incredibly powerful about being part of, and playing alongside professional musicians'. Children themselves valued the fact that some of the music educators were also orchestral performers. In addition, less high profile performance opportunities such as those within school, at local venues, or within family homes, were also valued. At the learning day workshop, programme staff defined this aspect of In Harmony as 'a performance culture' – not just the one hit wonder, but involving many types of regular performance opportunities – so that performing has become 'normal'.

All of the pedagogical features of In Harmony seem underpinned by the **regular, frequent and intensive nature** of In Harmony provision. As discussed in Section 3, children take part in three to four hours regular provision each week in curriculum time – which is more than other WCET approaches (which would normally be around one hour of curriculum time per week). Not only is provision regular, it also involves children throughout their time at primary school, and increasingly programmes are offering after-school provision for children who have made the transition to secondary school (see below).

Understanding the elements of **continuity and progression** within the programme was a key focus of the In Harmony programme and practitioner learning day in 2016. In Harmony staff spoke about the **child-centred approach** to continuity across the programme, through ensemble progression routes spanning school and extra-curricular activity and from early years to secondary school. Music staff explained this involved having a common repertoire between instrumental lessons and orchestral and extra-curricular work. It also involved building progression routes between different 'levels' of orchestras, designed for beginner, intermediate and advanced players – 'so that the kids know that if they're doing really well, they can progress'. One of the challenges recognised within music provision in schools more widely, is a 'lack of effective connection between music within the classroom and music beyond the classroom' (Zeserson *et al*., 2014, p.26). In Harmony appears to be successful in making such connections.

Transition is another important feature being addressed by the In Harmony programmes – i.e. how best to support children to continue their music-making as they transfer from primary to secondary schools. This has been noted within music provision more widely; in particular that secondary schools are not provided with sufficient information about children's prior musical experiences and abilities, or are not taking on that information (Zeserson *et al*., 2014). The In Harmony programmes are making considerable efforts relating to this issue. Secondary-age children are able to receive after school ensemble tuition and to continue to play their instruments at after-school In Harmony orchestras. In Harmony programmes are establishing links with local secondary schools – although all plan to develop this area of their work further (see Section 4.5).

Although there are a number of challenges to embedding progression routes beyond primary school (see Section 3.2), In Harmony commonly offers after school orchestras and area ensembles where children can continue to play their instruments. Participating secondary children act as role models and tutors for the younger pupils. The mix of ensemble opportunities within school, after school and across age ranges seems a distinctive and powerful part of In Harmony, both musically and socially, as a school leader explained:

> *The secondary children are now teaching the younger children and they are taking the orchestra and composing – giving the younger children something to aspire to. And it gives the older ones a sense of commitment and power together. Team building makes them work together in a positive way as opposed to being out on the streets getting into trouble …*

Furthermore, In Harmony provides an ongoing connection between schools and families. The opportunity to build relationships over time was highlighted as a distinctive feature of In Harmony by a programme director:

> *The schools really ensure that there is universal access. I delivered Wider Opportunities before I came to In Harmony. In Harmony is different [to Wider Opportunities] because we offer extended opportunities for children for two, three, four years through schools, which allows us to build those links with families, with children. … What In Harmony has done through a schools' offer is it has made playing an instrument the norm. … I think one of the criticisms of the Wider Opportunities programme is that it wasn't sufficient time to build those relationships.*

5.2 Addressing challenges and securing future viability

Research question 8: How successful are In Harmony sites in securing their future viability?

The local In Harmony programmes were each charged with planning for their future financial viability and having a sustainable operating model. Across the six programmes there was widespread commitment to the In Harmony approach, but with variable levels of progress in developing sustainable models. Whilst programmes have overcome the initial logistical challenges of implementing In Harmony (such as timetabling, storing instruments, and establishing and maintaining partnerships), a number of challenges and areas for further development remain. The key considerations for future viability and how programmes were addressing them are set out below.

- **Building progression and transition routes** – All programmes have developed after-school ensembles and orchestras where children can continue to play their instruments after they leave primary school. In one In Harmony programme, the out-of-school provision acts as a hub, providing all children in the local area with

to access music-making. In another programme, a network of area bands has been developed to support children to continue to play their instrument once they leave primary school. In other areas, children of secondary age are signposted to existing local music provision. Most In Harmony programmes also focus on the early years – extending the opportunity for building a continued engagement programme. At the In Harmony learning day in 2016, In Harmony managers recognised the challenge of building ensemble progression routes further. They felt these needed to be easy to access, more overt, and embedded within wider provision offered by music education hubs.

- **Developing links with secondary schools** – As part of transition work, a number of programmes have developed links and relationships with local secondary schools. One secondary school planned to change its music curriculum to be more regular – once a week, rather than the school's usual modular approach – to capitalise on the experience of children entering Year 7 from In Harmony schools. In another area, In Harmony performances have taken place in a local secondary school. However, in some areas, developing links remains a considerable challenge, as children from In Harmony primary schools transfer to a large number of secondary schools (over 20 spread across a city in one instance).
- **Expanding to other schools and their children** – Most In Harmony programmes have expanded curriculum-time provision to other local schools and their children. This has presented a considerable resource and workforce challenge. In some areas, integrating In Harmony within music education hub provision has provided a potential solution; in others, efficiencies in staffing and timetabling and sharing provision across schools have supported delivery. One area (Nottingham) has developed an In Harmony offer to all schools, with different levels of provision (gold, silver and bronze – as described in Section 2.2).
- **Developing greater synergies between delivery organisations and music** education **hubs** – Programmes have developed synergies with music education hubs to a greater or lesser degree. In one area, In Harmony has been completely integrated within the hub. In another, the City Music Service has taken on In Harmony. A second programme has developed common resources and repertoire to use across all music hub provision, including In Harmony. Another programme was developing links to a youth partnership programme, as a focus for In Harmony delivery to other deprived communities in the region. At the learning workshop in 2016, In Harmony staff recognised the need to further develop a common repertoire and a teaching approach across In Harmony and hub programmes – to ensure 'connectivity and consistency for the longer term'.
- **Supporting workforce development and capacity building** – In Harmony teams have enhanced their practitioner capacity in a number of ways, including developing staff from the music education hub team to deliver In Harmony, delivering through team teaching, and providing CPD support to schools. However, In Harmony programme managers recognised the need for greater

capacity building within schools, to enable school teachers to deliver/co-deliver some aspects of In Harmony.

- **Increasing parental and community engagement** – In Harmony staff recognised a need for more focus on parental and community engagement, to normalise music progression as part of children and families' musical and social engagement with schools. They felt a focus on early years' provision would be important here, reflecting the social justice agenda and recognising the need to work with families from an early stage in children's lives.
- **Developing longer-term resource and funding models** – the funding model for In Harmony has seen core funding reduce during the three years of the evaluation, and programmes starting to develop other funding streams. Most programmes have undertaken proactive fund-raising and income generation, and have attracted funds from a range of partners and donors including: local enterprise partnerships, charitable trusts, philanthropic donations, health and wellbeing partners, police and crime commissioners, local community funds (including funding from a local football ground in one case), and music education hubs. In Harmony programme directors find the core ACE/DfE funding was important in giving confidence to other funders. Schools themselves have invested some of their Pupil Premium funding in In Harmony, and school contributions have increased. In Nottingham, schools can buy in provision at one of three levels of intensity. It is likely that the balance of funding will be expected to shift further from core grant support to local income-generation in the future. Finding sustainable funding models represents a key focus and challenge for all In Harmony programmes in the future.

6 Discussion and conclusion

6.1 Discussion of the main findings

The main purpose of this evaluation was to study the impact of In Harmony on participating children, schools and families. The programme is now well established in its partner schools, with strong support from school staff, children and parents. It is working in areas of social disadvantage with multicultural populations, and providing children with valuable opportunities to take part in ensemble playing both within and outside school time.

Not surprisingly, the strongest evidence of impact concerns In Harmony's impact on music education. The attitudes of participating children towards music-making were positive, and significantly higher than those of children in comparison schools. Attitudes to music were also more positive amongst children who have taken part for longer.

There was no quantitative evidence of an association between In Harmony and children's attitudes towards their social or individual wellbeing. On the whole[27], children's attitudes were very positive but there were no differences between the scores of children in In Harmony and comparison schools. Nevertheless, interviewees said that In Harmony was contributing to children's confidence and communication, and provided compelling testimonies of the transformational effect of participation for individual children.

The evaluation found no evidence of positive effects on children's attainment or attendance, despite some interviewees' suggestion that in Harmony has had such positive effects. This may be because in Harmony schools were performing better in national tests during the evaluation period, but comparable schools and pupils were performing as well, if not better[28] in value-added terms.

In Harmony is clearly focused on areas of deprivation and the characteristics of participating children represented the characteristics of those attending In Harmony schools in terms of cultural background and FSM. However, there were some interesting findings in relation to children with particular characteristics, especially boys and children with SEN. Girls' attitudes towards music education were significantly more positive than those of boys, and they were also more likely to take part in In Harmony ensembles and tuition taking place outside curriculum time. Interviewees said that children with SEN benefited from their involvement in In Harmony during school time, but these children were significantly under-represented in extra-curricular activities across In Harmony as a whole. This is similar to the pattern reported by music education hubs nationally (Sharp and Sims, 2014; Sharp, 2015), suggesting that there may be barriers to participation in extra-curricular ensembles for boys and children with SEN which are also reflected in In Harmony.

[27] With the exception of Factor 4: 'outlook on life'
[28] In the case of Key Stage 1 results in 2013 and 2014.

In terms of wider social impact, there is evidence that In Harmony is helping schools to engage with parents, particularly through children's performances at school and in other high profile venues. Parents are very proud of their children's musical achievements and are supporting their children's musical development at home. In Harmony provides potential for parental engagement with school to improve and for some parents to broaden their cultural engagement (for example by experiencing different genres of music and by visiting cultural venues). It also provides an opportunity for parents to form social relationships with other In Harmony parents and for children to socialise with children of different ages attending their own and other schools.

In terms of increasing parental aspirations for their children, some interviewees pointed out that parents' aspirations were not necessarily low. Nevertheless, there was some evidence of In Harmony expanding horizons for both children and parents, including opening the prospect of a career in music for children who would probably not have had the opportunity without In Harmony.

6.2 Conclusion

In Harmony appears to be making a difference to children's musical outcomes. It is a popular programme amongst schools and parents who are convinced of its contribution to musical and social outcomes for children attending schools in disadvantaged areas. Although there was no quantitative evidence of a positive association between participation in In Harmony and wider wellbeing or attainment outcomes, there are numerous testimonies of a positive impact on social wellbeing and learning among individuals and groups. It may be that these are longer-term outcomes which are too early to detect within the period covered by this study.

6.3 Implications

There are a number of implications arising from this study. As noted above, In Harmony is a popular and inspiring programme which deserves consideration for further public funding on musical and social grounds. However, given its intensive and targeted nature, the cost per child is also a relatively high. Costs are also likely to increase in future if existing In Harmony programmes are to continue to support children as they make the transition to secondary school. It would therefore seem important to continue to monitor outcomes to see whether the public investment has paid off in the longer-term (for example, when children at primary school in 2013 have reached adulthood). It is also important to investigate different models of funding and delivery (such as the models already emerging in Nottingham), to examine whether it is possible to retain the character and value of in Harmony whilst expanding it to other schools.

To date, In Harmony has depended on the involvement of cultural organisations and music educators to deliver high-quality music ensembles, orchestral music and opera (in the case of Opera North). Arts Council England may wish to investigate whether a similar model could be applicable to other musical genres and art-forms, using a

'learning through an ensemble' approach, in order to pursue the objectives of *Achieving Great Art for Everyone* (ACE, 2010).

One of the implications for In Harmony schools and providers is to continue to consolidate the learning from the programme so far, in particular the structured and supportive pedagogical approach to learning an instrument. This includes team teaching and peer learning, including between adults and children of all ages. It is also important for school staff to continue learning an instrument themselves, to demonstrate their own commitment to learning as well as to develop their musical skills.

Against the background of positive attitudes towards music, it is important to note the finding that over a fifth of children said they did not like playing their instrument or singing in class. It would seem important for providers and schools to consider what more they could do to engage with these children. There is potential to identify the potential barriers to boys' enjoyment of music and investigate why boys and children with SEN were not participating in extra-curricular activities to the same extent as other children. It would also be useful for In Harmony to identify and exchange good practice in encouraging inclusive participation outside school hours in order to promote greater social mobility within amateur and professional participation.

In relation to In Harmony teachers, there is a need to develop a career structure to develop high quality versatile music educators dedicated to improving social justice through working with children from deprived areas. As part of this, they need access to relevant, high quality opportunities for professional learning and development.

In terms of music education more widely, In Harmony teachers and schools have developed insights into how to deliver engaging pedagogy. We have also heard of some positive examples of alignment between In Harmony and music education hubs. We believe that these examples should be further encouraged and shared more widely within the education and cultural sectors in the interests of achieving a higher standard of music education for all.

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Appendix A Research questions and Theory of Change

A1 Research Questions

The research investigated a set of eight research questions, listed below.

1. To what extent does In Harmony engage with children from all cultural backgrounds?
2. Are children's musical enjoyment and musical skills improved through involvement in In Harmony?
3. To what extent is children's wellbeing enhanced through involvement in orchestral music-making – especially in terms of developments in their social, emotional, health and lifestyle-related wellbeing?
4. Do pupils achieve better at school and attend more regularly than their peers in comparison schools not involved in In Harmony?
5. Does involvement in In Harmony help parents[29]/carers to have high expectations for their children and to feel able to help them realise their aspirations?
6. To what extent is parental engagement with school improved as a result of involvement in In Harmony?
7. Does In Harmony help parents to develop a stronger sense of community?
8. How successful are In Harmony sites in securing their future viability?

[29] Throughout this report we use the term 'parents' to refer to parents and carers.

A2 A Theory of Change model for In Harmony

Mission

To transform the lives of children in exceptionally deprived communities through orchestral music-making.

Assumptions

Step 1. The issues are:

- Many children from deprived backgrounds fail to achieve their full potential. They start at a disadvantage and continue to fall further behind their peers at school.
- They are more likely in future to call on the services of the health, benefits and criminal justice sectors.

Step 2. Underlying causes are:

- Inter-generational unemployment
- Lack of an enriched home learning environment
- Children may not start school ready to learn and may have low resilience
- Parents may lack understanding of how to help their children achieve high aspirations.
- Possible low expectations from teachers and schools.
- Possible lack of community cohesion in disadvantaged areas.

Step 3. The level we want to work at is:

- Whole school and local community levels.

Step 4. A highly effective initiative would:

- Be inspirational in the school and community, and inspire others to invest in it. It would raise the expectations and improve the life chances of children through high quality musical education.

Outcomes

Step 10. We would expect to see the following outcomes:

1. All CYP involved in IH make greater progress compared with those from similar backgrounds in the following respects:

- Good school attendance and low exclusions
- Improved well being, relationships with parents and health
- Improved attainment (especially in literacy and numeracy)
- Avoidance of involvement in drugs and crime
- EET participation at the end of compulsory education
- Developing musical skills.

2. Parents benefit from their children's involvement by:

- Improved relationships with their children
- Better understanding of how to help their children to achieve their life goals
- Greater involvement in schools
- Improved sense of community.

3. In Harmony projects attract a wide range of investment and support and have a sustainable model. The core principles of In Harmony are replicable in different contexts.

Strategies

Step 7. The strategies/tools used are:

- Free orchestral coaching and tuition from arts professionals (working with class teachers and/or community leaders)
- Involvement of a whole cohort of children
- Peer to peer learning and mentoring.

Step 8. The resources that we have to influence the target groups are three years of funding to provide:

- Professional music expertise
- Musical instruments provided to children.

Step 9. Others working in the field include: instrumental music service providers, school music coordinators; music education hubs; and other schools.

Target Groups

Step 5. Those being impacted will be:

- Children in the project schools from nursery to Year 6 and beyond.
- Children from other schools who attend IH out of school activities
- Parents of participating children who attend musical performances
- Staff in participating schools
- Other community members

Step 6. This will be achieved by**:** a whole-school approach involving children playing instruments together several times a week for extended periods and performing to parents and the community.

Appendix B About the case studies

B1 About the case studies

In the summer term 2013, case studies were conducted in five of the six In Harmony sites. The Advisory Group decided not to include Liverpool in the first set of case studies as a separate local evaluation was already underway. Case-study visits were conducted in all the In Harmony locations in the summer term 2015.

In both phases, the case studies focused on one school from each location with the research team speaking to a wide range of people at each site, including headteachers, teachers, In Harmony managers, music practitioners, pupils, parents and other stakeholders (such as partner organisations). In the case of pupil interviews, NFER asked schools to select a range of In Harmony participants. We then contacted their parents to ask permission to interview them and their child.

Semi structured interviews and guided conversations took place with participants, tailored to their specific areas of expertise and experience to ensure that individuals could comment appropriately and meaningfully on In Harmony. Each visit generally lasted for one day (although Liverpool spanned two days) and the research team were able to sit-in on a number of In Harmony tuition sessions and performances to observe and experience the ways in which the programmes were delivered. This provided useful knowledge upon which to ground and contextualise the interviews. Where possible, interviews were triangulated so that several interviewees at a site were asked about the same events/sessions and performances, for example, in order to generate multi-perspective information for subsequent analysis.

B2 About the interviewees

Table B1 sets out the numbers of interviewees involved in each location and their roles. In total, 97 people took part in NFER's case studies in the summer term 2013 and 104 in summer term 2015.

Table B1 Case-study interviewees – data collection 2013 and 2015

Interviews completed	Year	Leeds	Newcastle	Telford & Stoke	Liverpool	Lambeth	Nottingham	Total
IH programme leads (PD/PM)	2013	1	2	1	0	1	1	**6**
	2015	2	2	1	1	1	2	**9**
IH other staff	2013	3	0	0	0	1	2	**6**
	2015	1	5	1	2	0	2	**11**
School staff	2013	2	5	5	0	4	4	**20**
	2015	5	3	8	3	3	4	**26**
Children	2013	6	6	9	0	11	6	**38**
	2015	4	6	6	7	8	8	**39**
Parents	2013	4	3	3	0	6	6	**22**
	2015	2	2	2	3	2	4	**15**
Other	2013	0	1	3	0	1	0	**5**
	2015	1	1	0	1	1	0	**4**
TOTAL	2013	**16**	**17**	**21**	**0**	**24**	**19**	**97**
	2015	**15**	**19**	**18**	**17**	**15**	**20**	**104**

Source: NFER In Harmony Evaluation (2013 – 2015)

B3 About the headteacher focus group

In order to understand more about how In Harmony was working in schools, Arts Council England arranged a roundtable discussion of headteachers in October 2015. NFER facilitated the focus group discussion. Headteachers from seven of the In Harmony evaluation schools attended, representing schools from five of the six In Harmony programme areas: Leeds, Newcastle, Nottingham, Telford and Stoke, and Liverpool. Headteachers from schools in Lambeth were unable to attend on the day. The discussions focused on the following topics:

- The distinctive features of In Harmony
- Evidence and examples of impact
- In Harmony pedagogy
- In Harmony sustainability.

The key findings from the discussion group have been reported and published (White et *al*., 2015).

B4 About the practitioner learning day workshop

In February 2016, Arts Council England convened a workshop to examine key learning from In Harmony programme and practitioner perspectives. The purpose was to provide a practitioner-led articulation of specific In Harmony learning which would be valuable to the wider Music Education sector. In Harmony staff were asked to identify the most important features from their programmes for schools, teachers and music hubs that had supported 'success' and 'successful outcomes'. They were asked to highlight learning that would be transferable, or valued by, other settings that might not have the additional funding they had received under the In Harmony programme. An NFER researcher attended the day, so that we could incorporate the key learning into the evaluation findings.

Appendix C In Harmony and comparison group samples

This appendix sets out information about the sample of schools (C1); sample representation (C2); a description of the survey factor analyses and the composition and reliability of the factors (C3).

C1 The evaluation samples

The In Harmony sample was drawn from the list of schools provided by Arts Council England. This comprised 11 schools which were running or due to run the In Harmony programme in the 2012/13 school year. The NFER then drew a sample of 1,357 schools from statistical neighbours of the Local Authorities which were running In Harmony programmes. A stratified, random sample was drawn such that comparison schools' characteristics would match with that of the In Harmony schools. These characteristics were: percentage of pupils with SEN, percentage of pupils with FSM eligibility and percentage of pupils who are White British.

Table C1 below shows the number of pupils included in the analyses in each year and represents those which could be matched to the National Pupil Database (NPD).

Table C1: Number of pupils included in each analysis

Analysis	Total		2013		2014		2015	
	In Harmony	Comparison	IH	Comp	IH	Comp	IH	Comp
Survey	2,584	3,555	878	2,438	657	-	1,049	1,117
Provision	6,913	-	2,175	-	2,259	-	2,479	-
Factor (1-8)	2,288	3,039	775	2,072	547	-	966	967
Factors (1-8) and provision	2,287	3,040[30]						
KS1	1,299	3,384	424	1,040	420	1,153	455	1,191
KS1 and provision	871	3,812[31]						
KS2	1,072	3,002	340	905	342	1,043	390	1,054
KS2 and provision	1,000	3,074[32]						
Attendance	8,065	21,728	2,583	6,745	2,692	7,405	2,790	7,578

Source: NFER In Harmony Evaluation

C2 Sample representation

Characteristics of the In Harmony schools sample were contrasted against the comparison schools sample. Table C2 presents school characteristics for all schools involved in the analysis. As seen in the table, proportions of In Harmony responding schools in each category of SEN band, FSM band and White British band match with those of the comparison schools and there were no statistically significant differences between the In Harmony schools and the comparison schools in terms of these key characteristics. Respondents were from a group of schools that have higher percentages of SEN and FSM than the national averages and have lower percentages of White British pupils than the national averages.

[30] Including children in In Harmony schools with no exposure to In Harmony
[31] Including children in In Harmony schools with no exposure to In Harmony
[32] Including children in In Harmony schools with no exposure to In Harmony.

Table C2: Sample representation for schools included in the multi-level models at one or both time points

		In Harmony schools		Comparison schools	
		n	%	n	%
Percentage of pupils with any level of SEN	6 - 10%	0	0.00%	1	3.70%
	11 - 15%	1	9.09%	5	18.52%
	16 - 24%	4	36.36%	10	37.04%
	25% +	6	54.55%	11	40.74%
	Total	11	100%	27	100%
Percentage pupils eligible for FSM (5 pt scale)	Highest 20%	11	100.00%	27	100.00%
	Total	11	100%	27	100%
Percentage of pupils who are White British	Under 20% pupils who are White British	1	9.09%	5	18.52%
	20%-39% pupils who are White British	2	18.18%	5	18.52%
	40%-59% pupils who are White British	2	18.18%	2	7.41%
	60%-79% pupils who are White British	1	9.09%	5	18.52%
	80% and over pupils who are White British	5	45.45%	10	37.04%
	Total	11	100%	27	100%

Source: NFER In Harmony Evaluation

C3 Technical description of factor analysis conducted on the pupil survey

An online survey was administered to key stage 2 pupils in February – March 2013 and again in April – June 2015. It was also administered to the In Harmony pupils only in the summer of 2014. The survey assessed pupils attending the 11 primary schools taking part in the In Harmony programme[33] and pupils attending 24 statistically matched comparison schools. The survey contained a number of questions designed to assess children's social and musical attitudes.

[33] Pupils attending the nursery school involved in In Harmony did not take part in this survey. The survey was designed for key stage 2 pupils.

We used factor analysis to investigate differences between children in In Harmony and comparison schools. Factor analysis is a statistical technique for identifying patterns in responses. The object of factor analysis is to reduce the number of variables required to explain the data from the original large number to a smaller set of underlying 'factors' which can be related to the original variables. In the present study, once the items that constituted each factor were identified, a reliability check was performed on each factor to ensure it was measuring a particular trait well. The reliability of each scale was explored using Cronbach's Alpha (a measure of reliability). There were five factors representing social outcomes:

1. self assurance, security and happiness
2. application of self to learning
3. enjoyment of school and learning
4. outlook on life
5. view of future prospects.

There were three factors representing musical outcomes:

6. musical enjoyment and achievement
7. desire to play/continue playing a musical instrument in a group
8. desire to sing/continue singing in a group.

Tables C3a–h below show the items that make up each of the factors.

Table C3a Factor 1 – Self assurance, security and happiness

Item	Factor loading
I am a happy person	0.54
I feel safe in school	0.51
I like being me	0.49
I think I will have a happy life	0.41
I have friends	0.41
My school is a friendly place	0.38

Source: NFER In Harmony evaluation pupil survey 2013

Table C3b Factor 2 – Application of self to learning

Item	Factor loading
I do well in my school work	0.59
I try hard at school	0.51
I answer questions in class	0.47
I have good ideas	0.43
I do my homework	0.32
I like learning about things	0.30

Source: NFER In Harmony evaluation pupil survey 2013

Table C3c Factor 3 – Enjoyment of school and learning

Item	Factor loading
I like school	0.61
School work is fun	0.55
I like learning about things	0.53
I want to carry on learning things	0.36
My school is a friendly place	0.32
School work is important	0.31
I feel safe in school	0.30

Source: NFER In Harmony evaluation pupil survey 2013

Table C3d Factor 4 – Outlook on life

Item	Factor loading
I feel left out by children at school	0.60
I worry about things	0.49
I feel tired at school	0.40
People in my class are naughty	0.36

Source: NFER In Harmony evaluation pupil survey 2013

Table C3e Factor 5 – View of future prospects

Item	Factor loading
When I am grown up:	
I think I will be able to buy the things I need	0.47
I want to get a job	0.40
I think I will have a happy life	0.39
I want to carry on learning things	0.35

Source: NFER In Harmony evaluation pupil survey 2013

Table C3f Factor 6 – Musical enjoyment and achievement

Item	Factor loading
I like doing my music	0.87
I like listening to music	0.45
I am doing well in my music	0.40
My music teacher is fun	0.31

Source: NFER In Harmony evaluation pupil survey 2013

Table C3g Factor 7 – Desire to play/continue playing a musical instrument in a group

Item	Factor loading
When I leave this school, I want to play a musical instrument in a group with other people	0.59
I am learning a musical instrument	0.50
When I leave this school, I want to play a musical instrument	0.49
I play a musical instrument in a group with other people	0.50

Source: NFER In Harmony evaluation pupil survey 2013

Table C3h Factor 8 – Desire to sing/continue singing in a group

Item	Factor loading
When I leave this school, I want to sing in a group with other people	0.71
I sing in a group with other people	0.60

Source: NFER In Harmony evaluation pupil survey 2013

Table C4 shows the reliability of each of the factors at three timepoints, using the full dataset (i.e. all responding children, not just those who could be matched to the NPD).

Table C5 Reliability for the factors derived from the pupil survey

Item	Cronbach's Alpha (2013)	Cronbach's Alpha (2014)	Cronbach's Alpha (2015)
Factor 1: Self assurance, security and happiness	0.69	0.65	0.66
Factor 2: Application of self to learning	0.74	0.64	0.71
Factor 3: Enjoyment of school and learning	0.74	0.77	0.74
Factor 4: Outlook on life	0.52	0.48	0.5
Factor 5: View of future prospects	0.49	0.39	0.42
Factor 6: Musical enjoyment and achievement	0.62	0.46	0.41
Factor 7: Desire to play/continue playing a musical instrument in a group	0.76	0.47	0.61
Factor 8: Desire to sing/continue singing in a group	0.65	0.39	0.51

Source: NFER In Harmony Evaluation 2013 – 2015

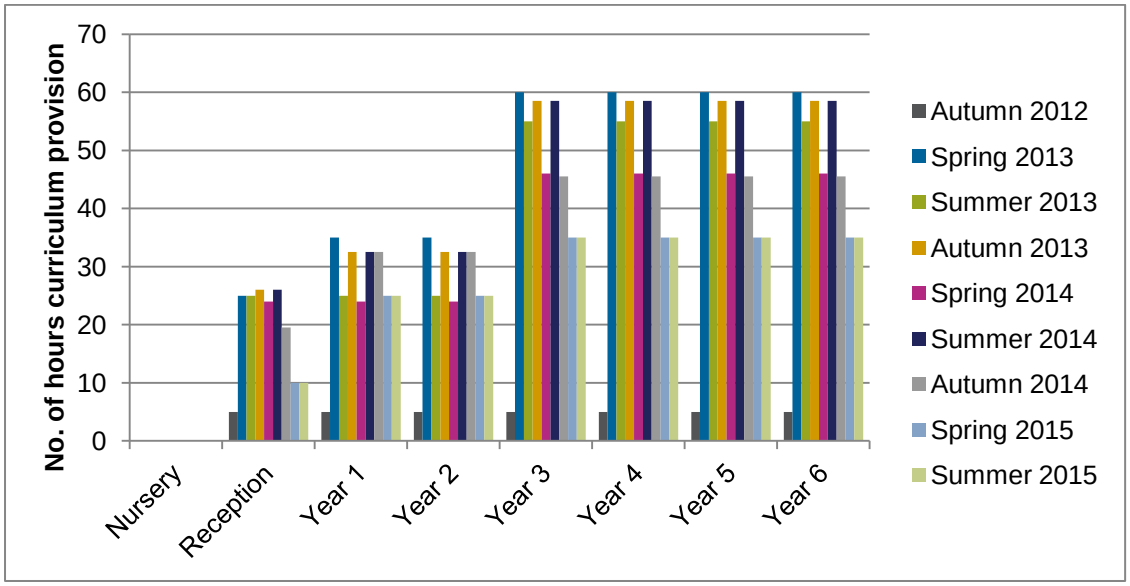
Appendix D In Harmony provision (Autumn 2012 – Summer 2015)

D1 Curriculum provision in In Harmony schools

This section presents details of the amount (total curriculum hours) of In Harmony provision that took place in each of the 12 In Harmony schools for the period autumn 2012 – summer 2015. The data is provided for whole year groups. Figures D1 – D12 present the data for each of the 12 schools. It is worth noting the variation in term lengths when looking at the charts presented here.

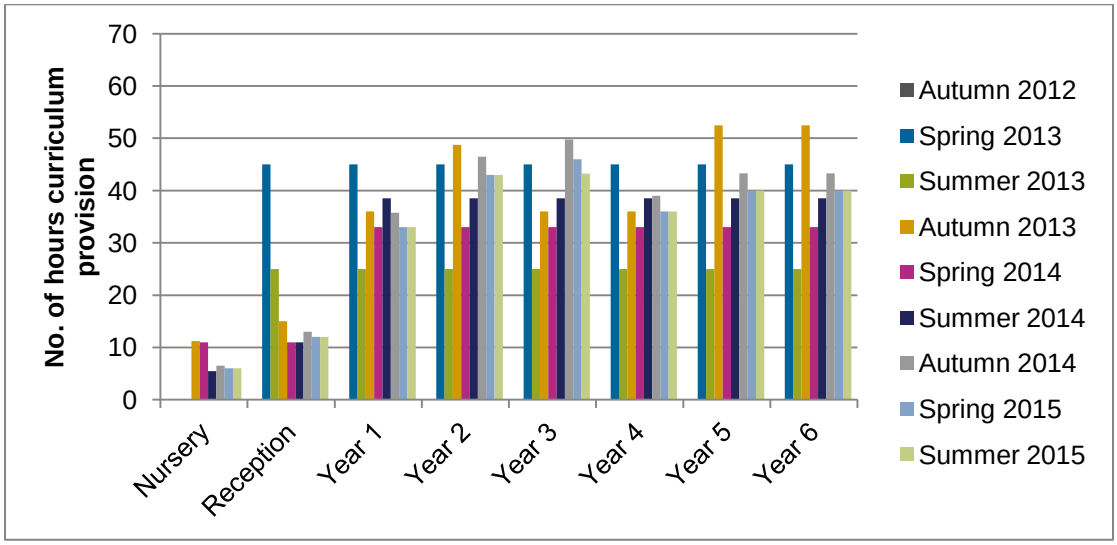
- Autumn 2012 – was a 15 week term for all the In Harmony schools
- Spring 2013 – was an 11 week term for all the In Harmony schools
- Summer 2013 – was a 13 week term for four of the In Harmony schools, and 13.5 weeks for the other eight schools
- Autumn 2013 – was a 15 week term for all the In Harmony schools
- Spring 2014 – was a 12 week term for six of the In Harmony schools, 12.5 weeks for four of them, and 13 weeks for the remaining two schools
- Summer 2014 – was a 12 week term for six of the In Harmony schools, 12.5 weeks for four of them, and 11 weeks for the remaining two schools
- Autumn 2014 – was a 15 week term for seven of the In Harmony schools, and 14 weeks for the other four schools
- Spring 2015 – was an 11 week term for three of the In Harmony schools, and 12 weeks for the other eight schools
- Summer 2015 – was a 13 week term for three of the In Harmony schools, 13.5 weeks for four of them, 12.5 weeks for three of them, and 12 weeks for the remaining school.

Figure D1: School A



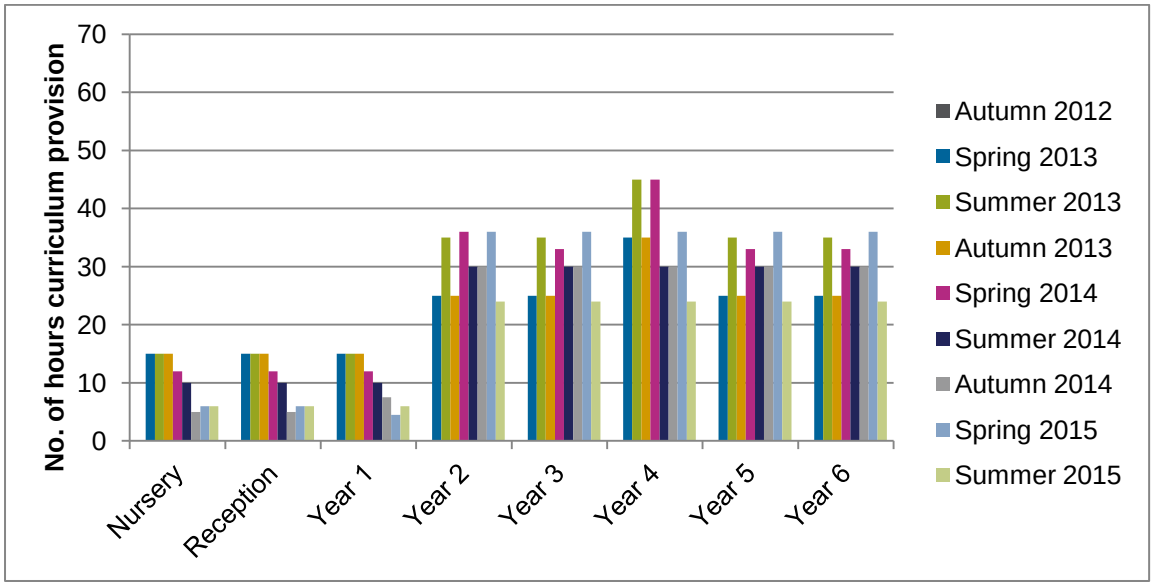
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D2: School B



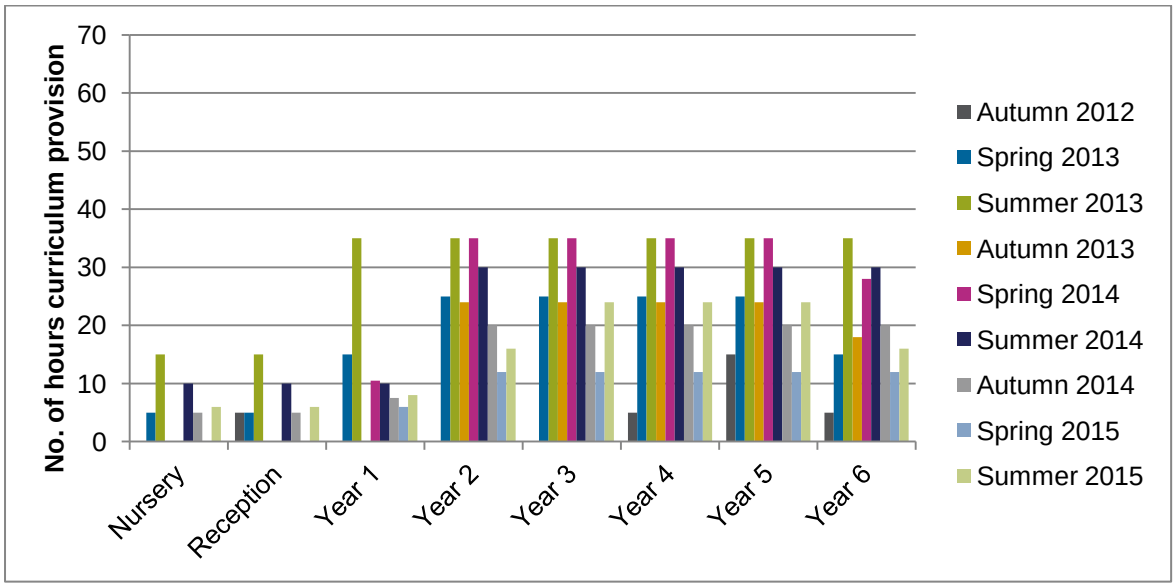
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D3: School C



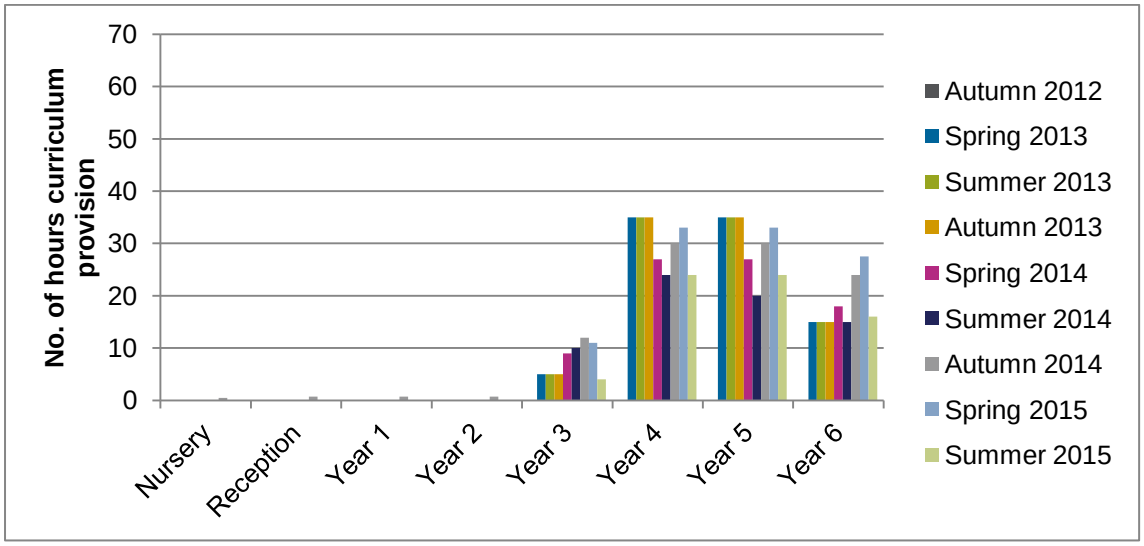
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D4: School D



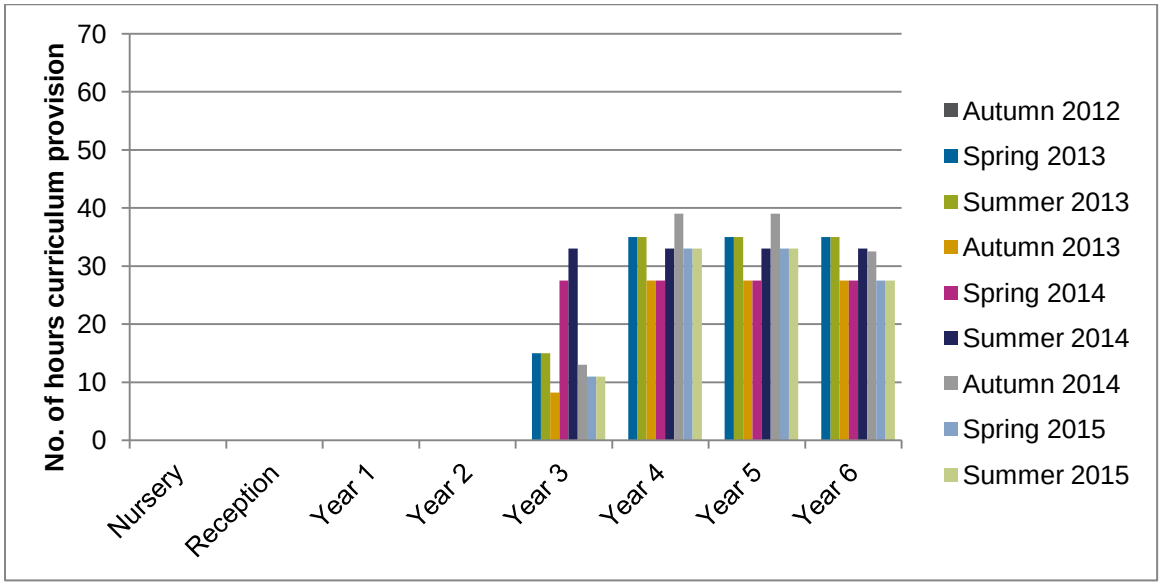
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D5: School E



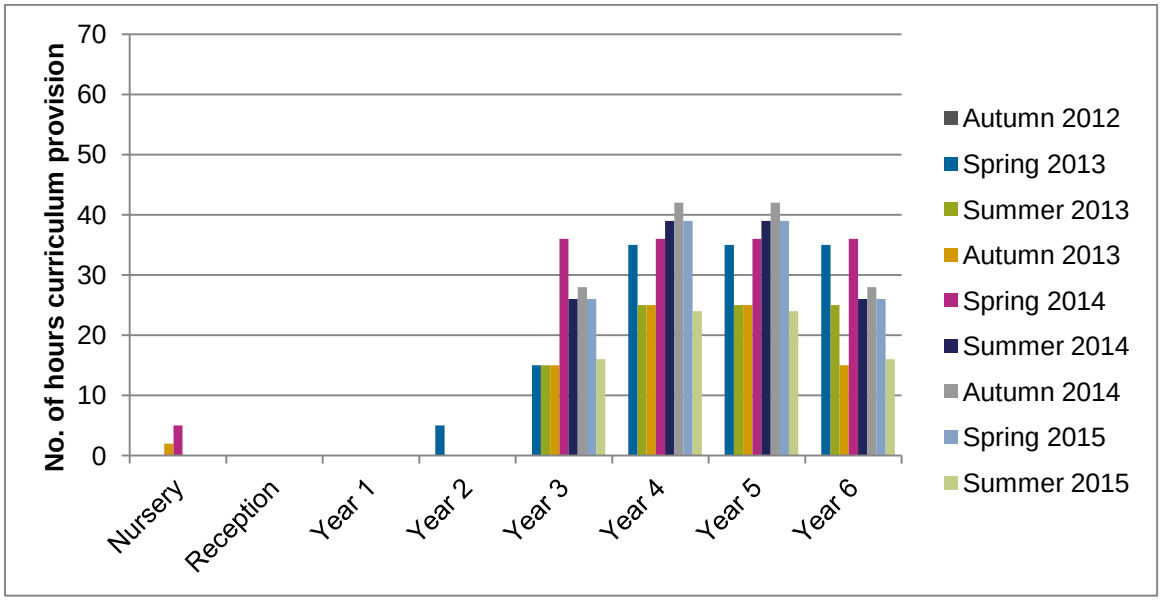
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D6: School F



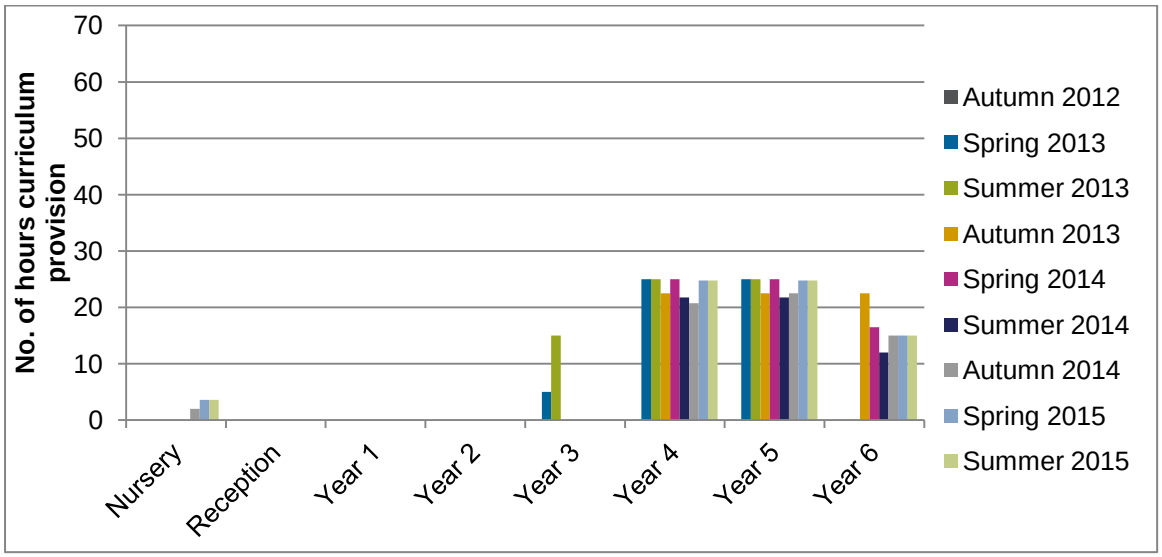
Source: NFER In Harmony provision data collection 2012 – 2014.

Figure D7: School G



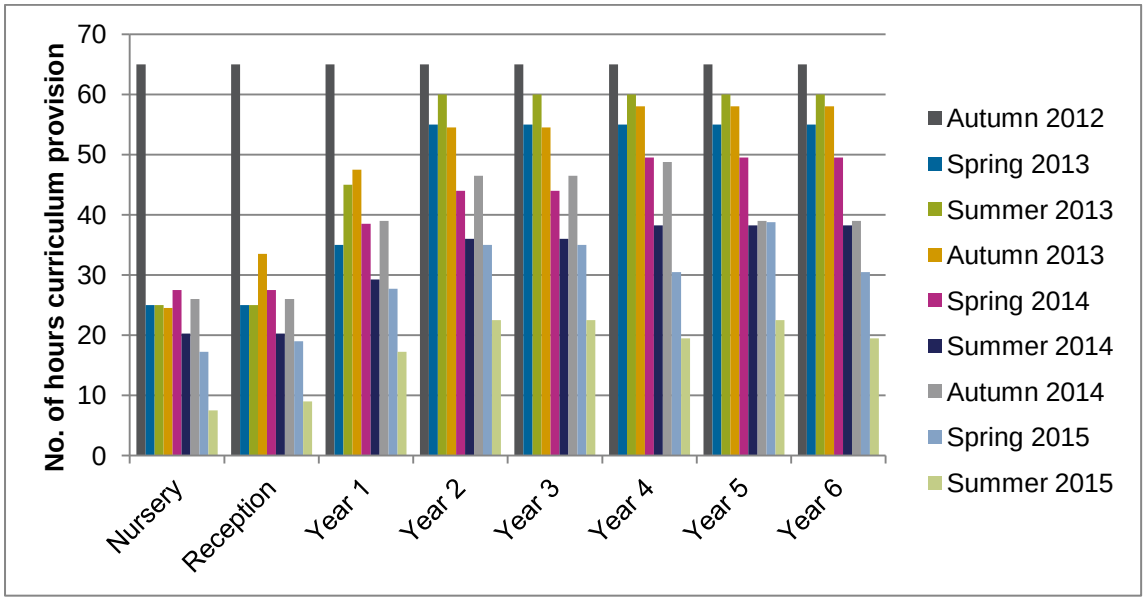
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D8: School H



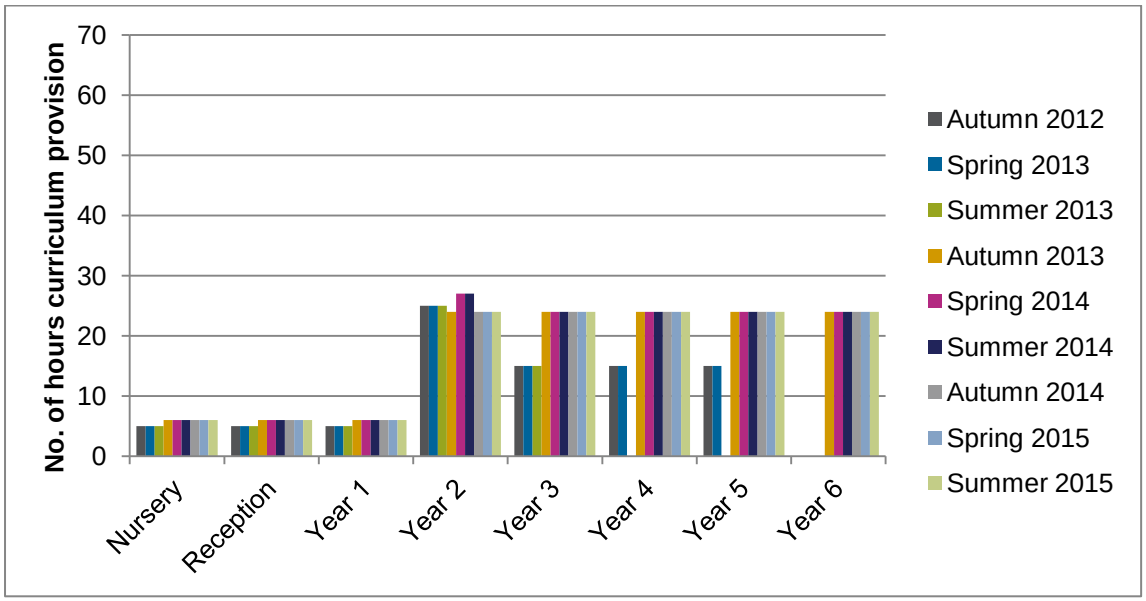
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D9: School I



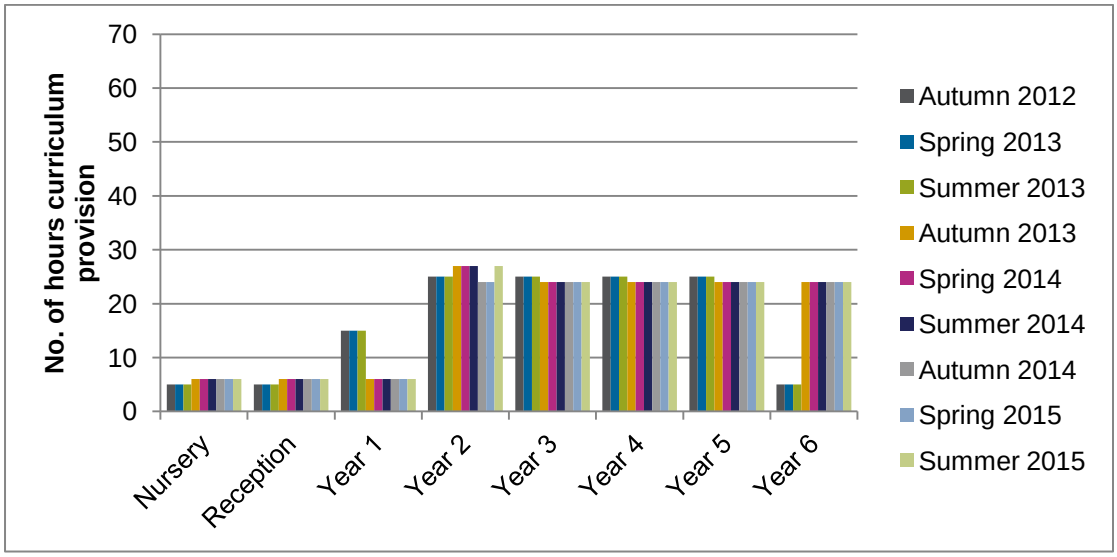
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D10: School J



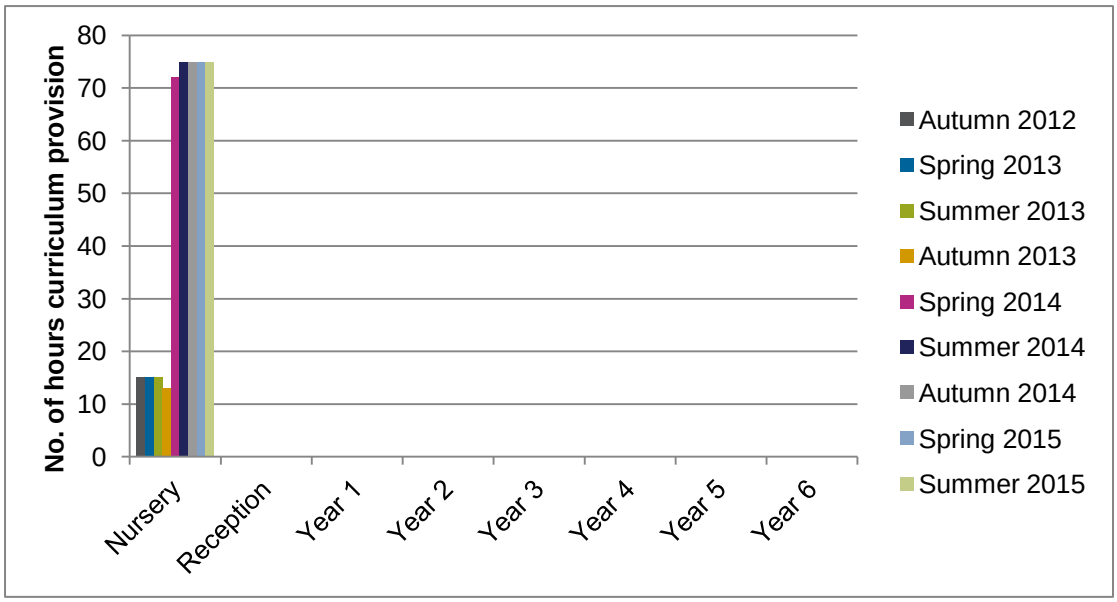
Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D11: School K



Source: NFER In Harmony provision data collection 2012 – 2015.

Figure D12: School L

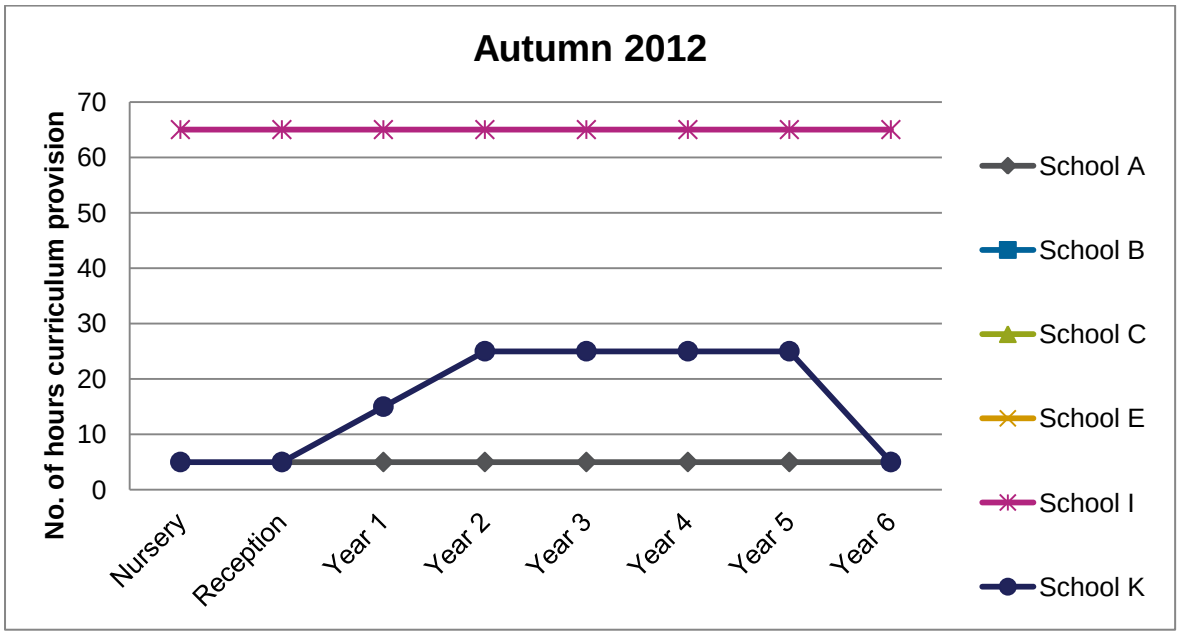


Source: NFER In Harmony provision data collection 2012 – 2014.

D2 In Harmony provision per term compared

This section presents details of the amount (total curriculum hours) of In Harmony provision by term, so that across school variation can be seen within each term, and termly charts can be compared. Figures D13-D21 present the data across six of the In Harmony schools (one in each of the programme areas), as examples, to help compare patterns in termly provision.

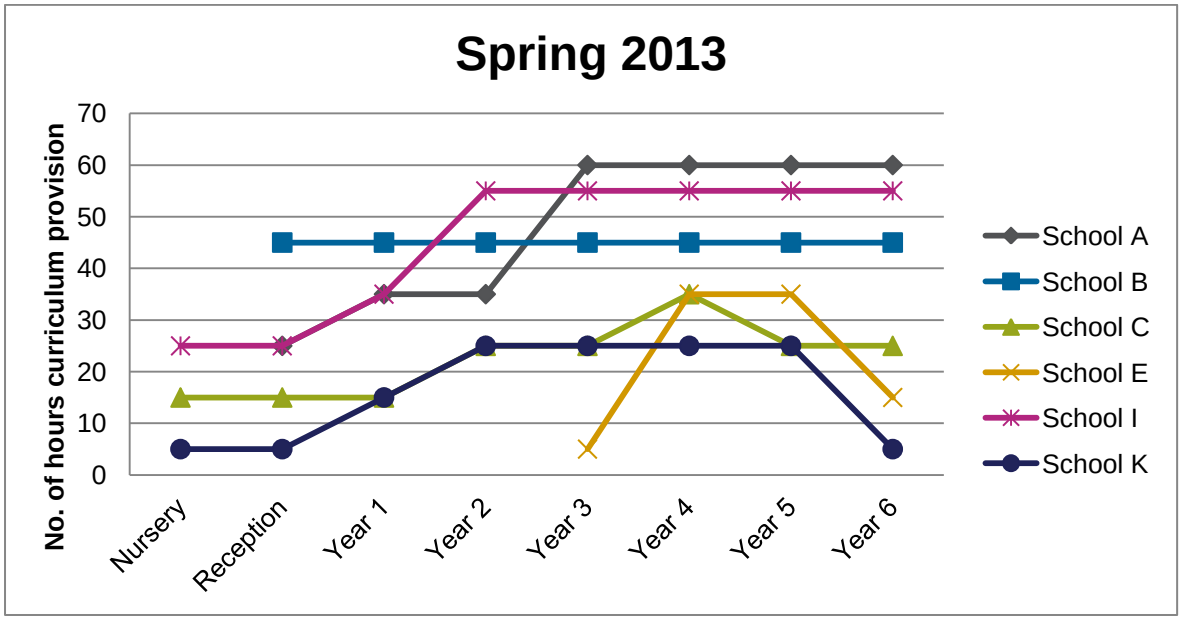
Figure D13: Autumn 2012 curriculum provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was a 15-week term for In Harmony schools. Note the new In Harmony areas provided start-up provision this term, but not full provision, hence the amount of provision is low or zero for these schools.

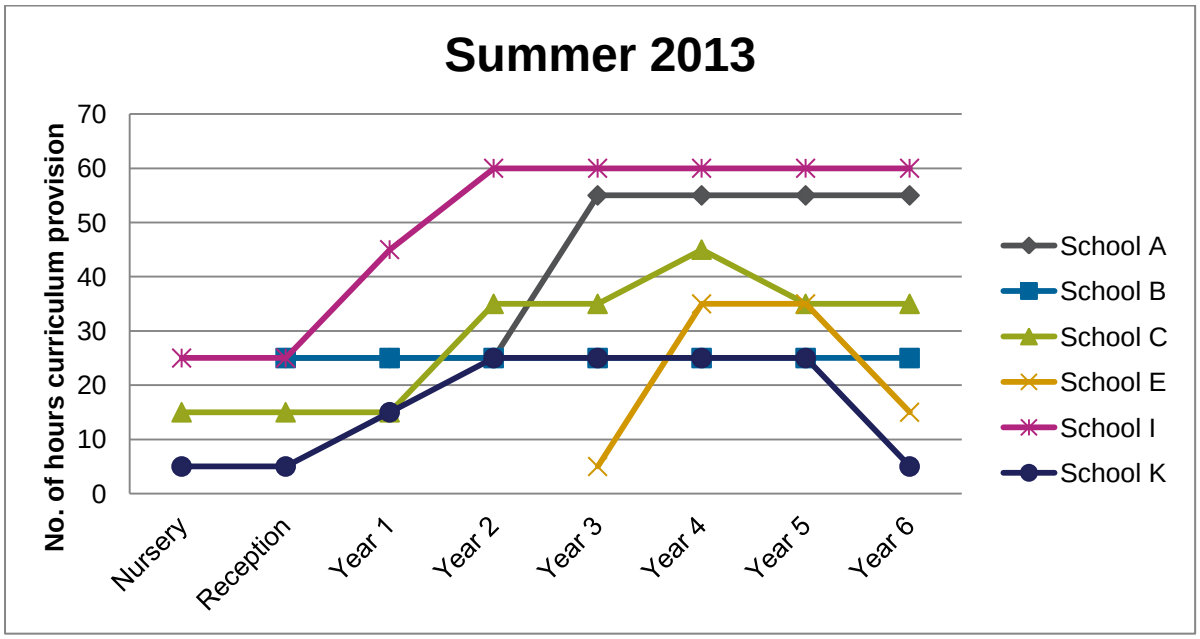
Figure D14: Spring 2013 curriculum provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was an 11-week term for In Harmony schools.

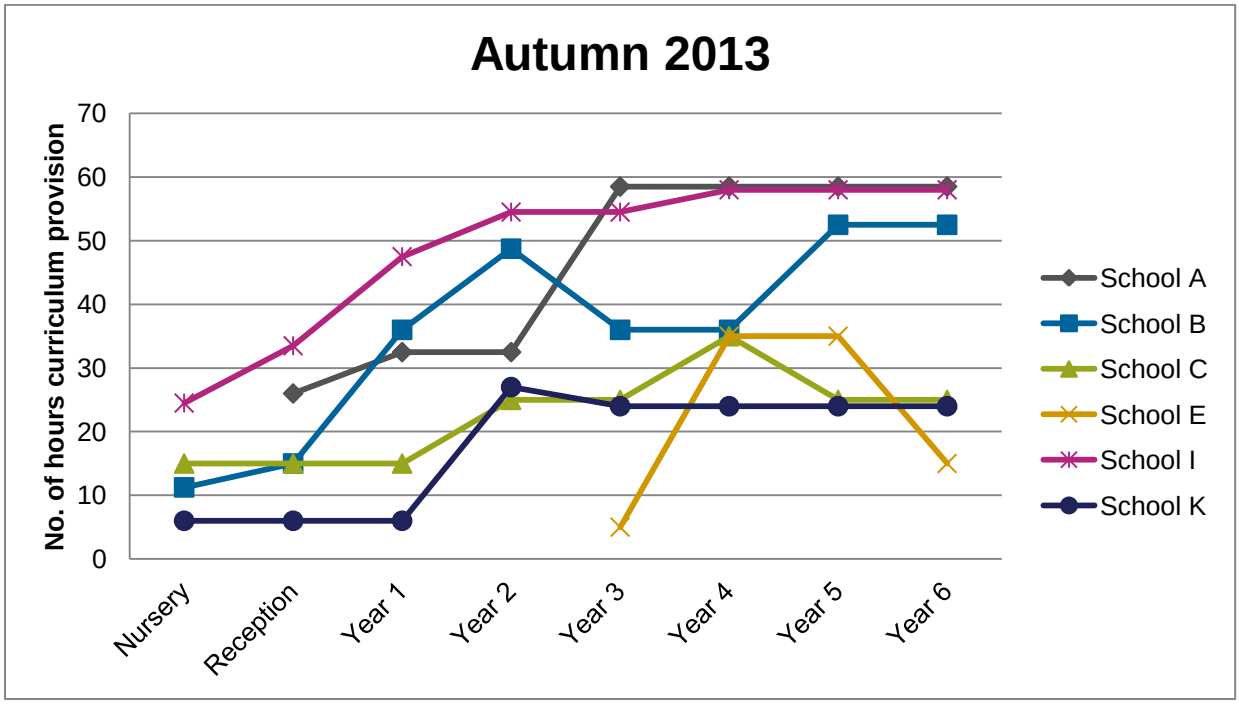
Figure D15: Summer 2013 provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was a 13 – 13.5 week term for In Harmony schools.

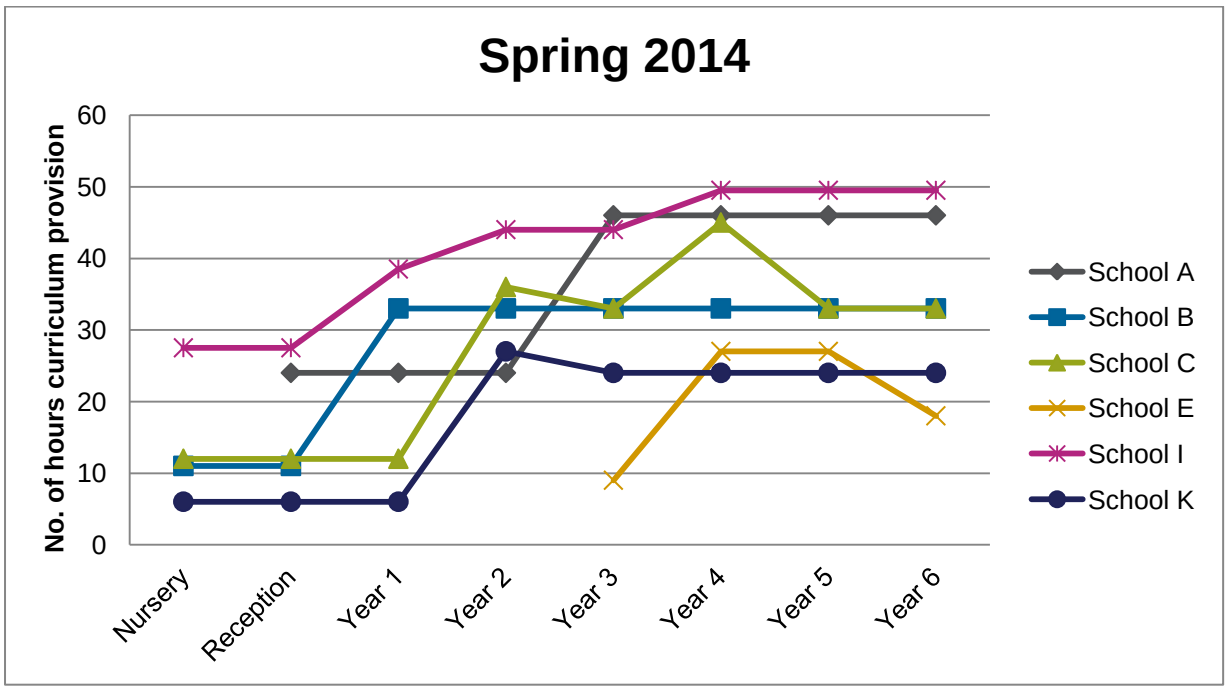
Figure D16: Autumn 2013 provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was a 15-week term for In Harmony schools.

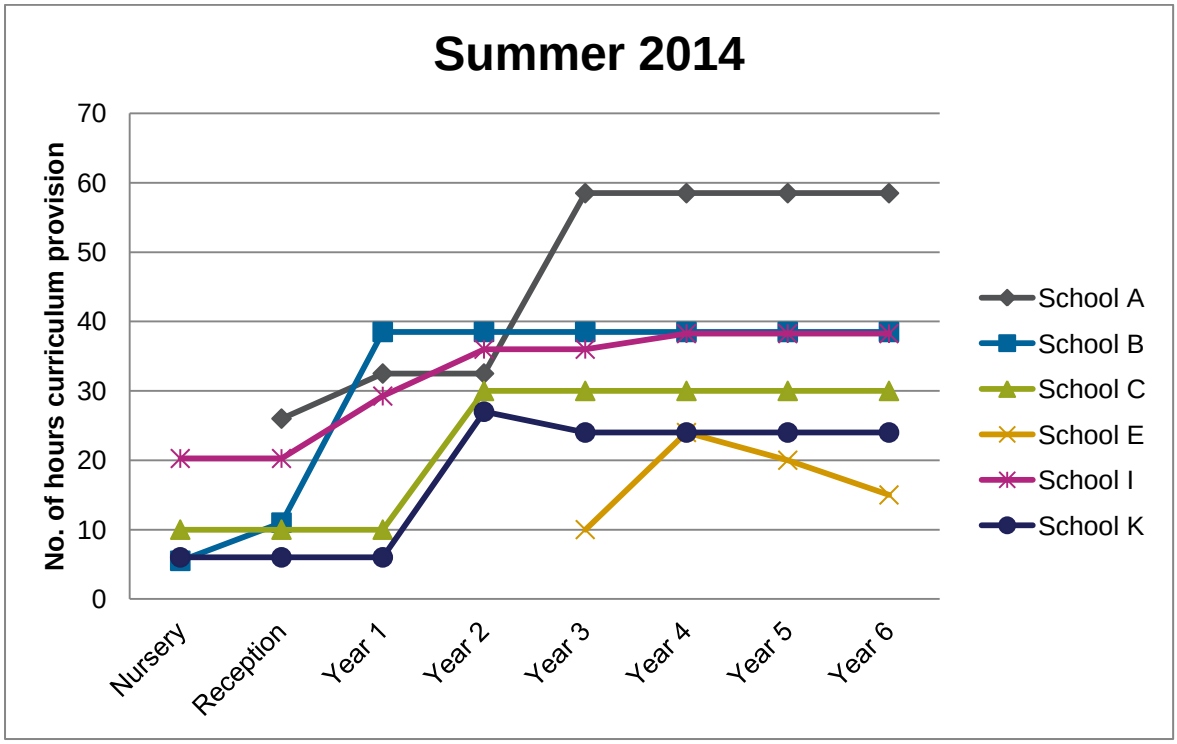
Figure D17: Spring 2014 provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was a 12 – 13 week term for In Harmony schools.

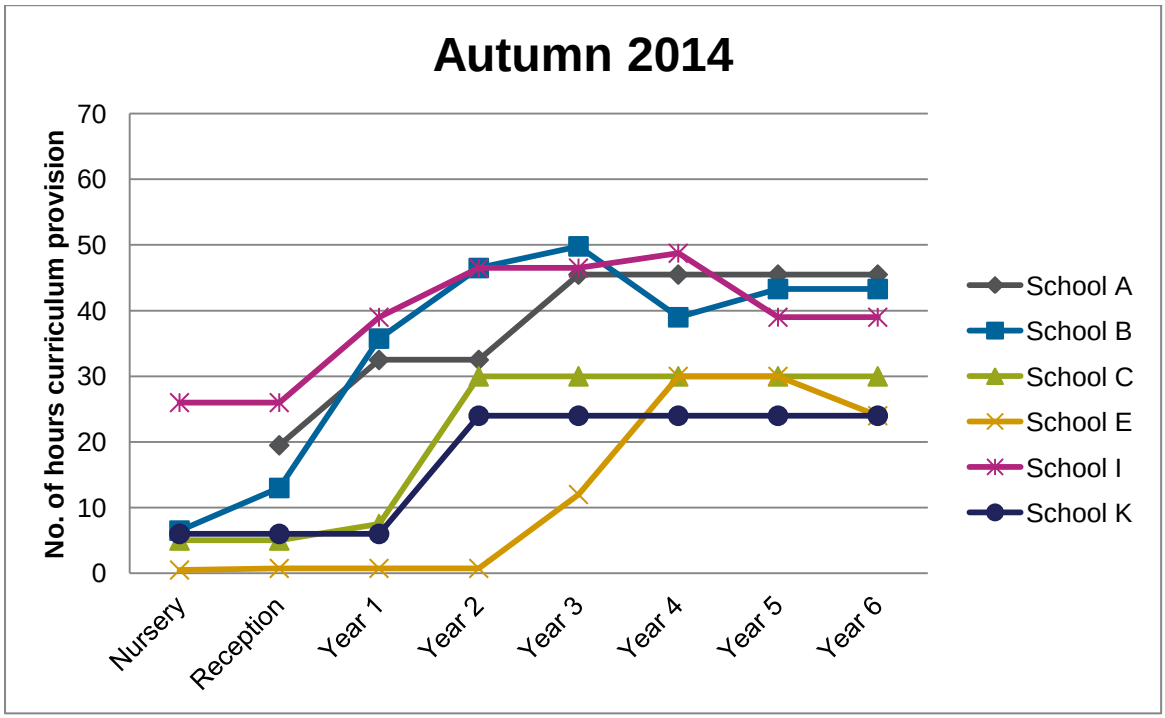
Figure D18: Summer 2014 provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was a 10.5 – 12.5 week term in In Harmony schools.

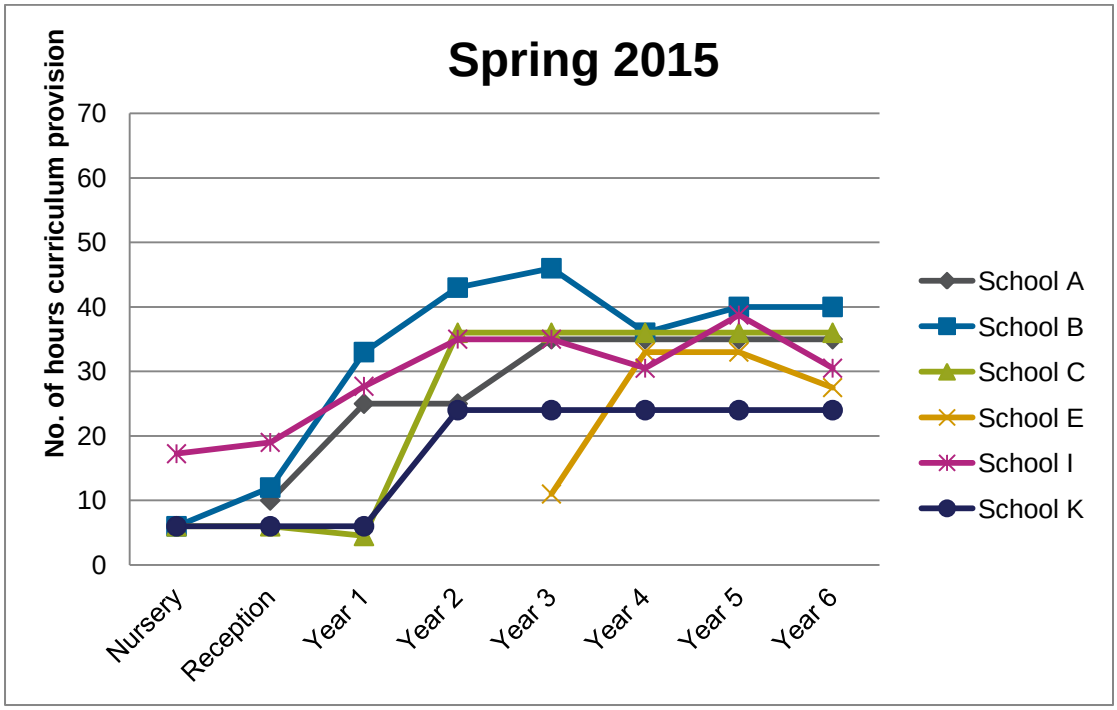
Figure D19: Autumn 2014 provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was a 14 – 15 week term in In Harmony schools.

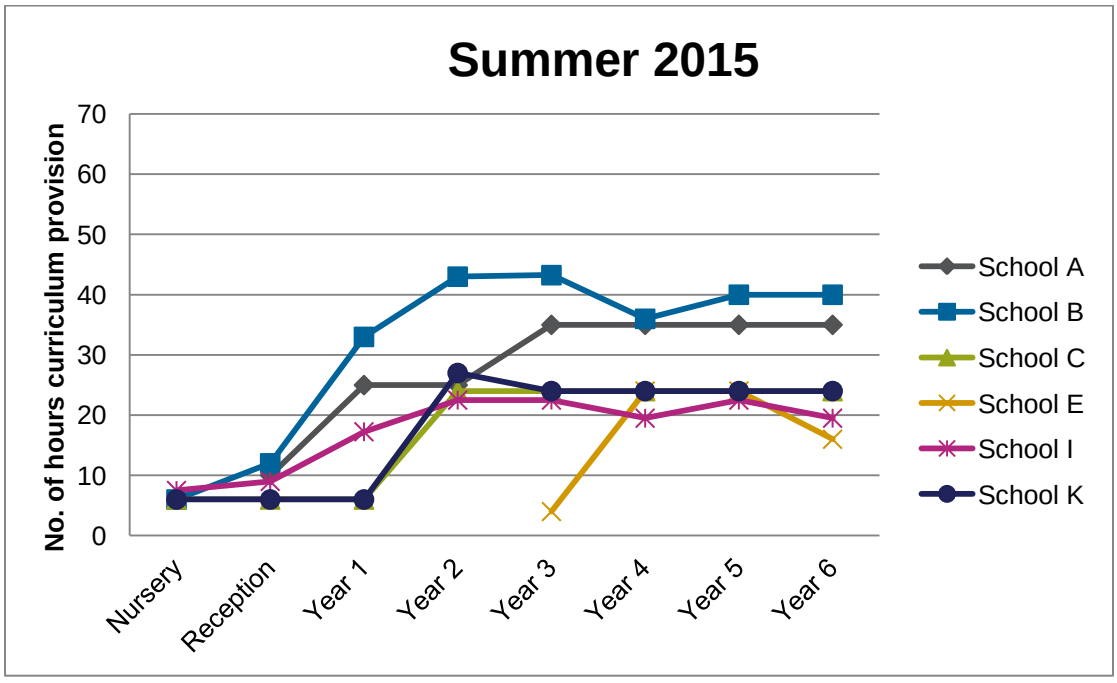
Figure D20: Spring 2015 provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was an 11 – 12 week term in In Harmony schools.

Figure D21: Summer 2015 provision data



Source: NFER In Harmony provision data collection 2012 – 2015.

This was a 12 – 13.5 week term in In Harmony schools.

Appendix E Multi-level models

This appendix provides details of the variables in the multi-level models and their relationship with the outcome measure. For brevity, this appendix does not include some of the models with no significant relationship between In Harmony and the outcome measures (namely: the five social attitude factors and school attendance).

Table E1: Musical enjoyment and achievement

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
In Harmony schools	0.806	0.139	5.786	0.000	0.533	1.079	0.26	***
Academic year 2013/14	-1.832	0.113	-16.283	0.000	-2.053	-1.612	-0.58	***
Academic year 2014/15	-0.059	0.073	-0.812	0.417	-0.203	0.084	-0.02	
Female pupil	0.708	0.058	12.287	0.000	0.595	0.821	0.23	***
Gender unknown	2.135	1.473	1.449	0.147	-0.753	5.022	0.68	
Pupil's ethnic group- Black	0.084	0.117	0.721	0.471	-0.145	0.314	0.03	
Pupil's ethnic group- Asian	-0.367	0.126	-2.927	0.003	-0.613	-0.121	-0.12	**
Pupil's ethnic group- other	0.329	0.203	1.622	0.105	-0.069	0.727	0.10	
Pupil's ethnic group- Unclear	0.240	0.173	1.384	0.166	-0.100	0.579	0.08	
Pupil's age- 6	1.347	1.735	0.777	0.437	-2.053	4.747	0.43	
Pupil's age- 7	1.970	1.467	1.343	0.179	-0.905	4.845	0.63	
Pupil's age- 8	2.206	1.466	1.505	0.132	-0.667	5.080	0.70	
Pupil's age- 9	1.689	1.466	1.152	0.249	-1.185	4.563	0.54	
Pupil's age- 10	1.517	1.466	1.035	0.301	-1.357	4.391	0.48	
Pupil's ethnic group- mixed	-0.005	0.125	-0.043	0.965	-0.250	0.239	0.00	
Key stage 1 average point score	0.010	0.011	0.930	0.353	-0.011	0.030	0.01	
Eligible for free school meals in the last 6 years	0.011	0.060	0.178	0.859	-0.107	0.129	0.00	
Identified as SEN pupil	0.003	0.078	0.035	0.972	-0.150	0.155	0.00	
English as an additional language	-0.140	0.100	-1.392	0.164	-0.336	0.057	-0.04	
School attainment measure at KS2	0.077	0.047	1.656	0.109	-0.014	0.169	0.04	
School percentage SEN	-0.029	0.136	-0.213	0.833	-0.296	0.238	-0.01	
School percentage FSM	-0.010	0.007	-1.289	0.208	-0.024	0.005	-0.04	
School percentage WBR (White British)	0.005	0.003	1.851	0.075	0.000	0.010	0.06	

Source: NFER In Harmony Evaluation

Table E2: Musical enjoyment and achievement - including amount of In Harmony time

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
Total IH provision 1-50 hours	0.532	0.195	2.732	0.006	0.150	0.914	0.17	**
Total IH provision 51-100 hours	0.673	0.147	4.567	0.000	0.384	0.962	0.21	***
Total IH provision 101-150 hours	1.297	0.179	7.225	0.000	0.945	1.648	0.41	***
Total IH provision 151 or more hours	1.478	0.240	6.147	0.000	1.007	1.949	0.47	***
Academic year 2013/14	-1.966	0.118	-16.664	0.000	-2.198	-1.735	-0.63	***
Academic year 2014/15	-0.123	0.074	-1.659	0.097	-0.269	0.022	-0.04	
Female pupil	0.710	0.058	12.341	0.000	0.597	0.822	0.23	***
Gender unknown	1.647	1.474	1.118	0.264	-1.242	4.536	0.52	
Pupil's ethnic group-Black	0.077	0.117	0.656	0.512	-0.152	0.306	0.02	
Pupil's ethnic group-Asian	-0.365	0.125	-2.909	0.004	-0.611	-0.119	-0.12	**
Pupil's ethnic group-other	0.312	0.202	1.543	0.123	-0.084	0.709	0.10	
Pupil's ethnic group-Unclear	0.258	0.173	1.494	0.135	-0.081	0.597	0.08	
Pupil's age- 6	1.325	1.731	0.766	0.444	-2.067	4.717	0.42	
Pupil's age- 7	2.026	1.463	1.385	0.166	-0.842	4.894	0.65	
Pupil's age- 8	2.206	1.463	1.508	0.132	-0.661	5.072	0.70	
Pupil's age- 9	1.697	1.463	1.160	0.246	-1.170	4.565	0.54	
Pupil's age- 10	1.574	1.463	1.076	0.282	-1.293	4.441	0.50	
Pupil's ethnic group-mixed	0.001	0.125	0.006	0.995	-0.243	0.245	0.00	
Key stage 1 average point score	0.008	0.011	0.715	0.475	-0.013	0.028	0.01	
Eligible for free school meals in the last 6 years	0.010	0.060	0.169	0.866	-0.107	0.128	0.00	
Identified as SEN pupil	-0.003	0.078	-0.032	0.974	-0.155	0.150	0.00	
English as an additional language	-0.118	0.100	-1.177	0.239	-0.314	0.078	-0.04	
School attainment measure at KS2	0.071	0.048	1.483	0.149	-0.023	0.165	0.04	

School percentage SEN	-0.032	0.140	-0.225	0.824	-0.306	0.243	-0.01	
School percentage FSM	-0.016	0.008	-2.121	0.043	-0.032	-0.001	-0.06	*
School percentage WBR (White British)	0.006	0.003	2.260	0.032	0.001	0.011	0.07	*

Source: NFER In Harmony Evaluation

Table E3: Desire to play/continue playing a musical instrument in a group

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
In Harmony schools	2.791	0.225	12.419	0.000	2.351	3.232	0.59	***
Academic year 2013/14	-0.624	0.146	-4.263	0.000	-0.911	-0.337	-0.13	***
Academic year 2014/15	-0.579	0.101	-5.754	0.000	-0.776	-0.382	-0.12	***
Female pupil	0.672	0.086	7.846	0.000	0.504	0.840	0.14	***
Gender unknown	1.382	2.414	0.572	0.567	-3.350	6.113	0.29	
Pupil's ethnic group- Black	0.431	0.174	2.476	0.013	0.090	0.772	0.09	*
Pupil's ethnic group- Asian	0.067	0.187	0.358	0.720	-0.299	0.432	0.01	
Pupil's ethnic group- other	0.468	0.297	1.574	0.116	-0.115	1.051	0.10	
Pupil's ethnic group- Unclear	0.265	0.253	1.048	0.295	-0.231	0.760	0.06	
Pupil's age- 6	-0.344	2.370	-0.145	0.884	-4.989	4.300	-0.07	
Pupil's age- 7	0.707	1.983	0.357	0.722	-3.179	4.593	0.15	
Pupil's age- 8	1.166	1.983	0.588	0.557	-2.721	5.053	0.25	
Pupil's age- 9	0.095	1.984	0.048	0.962	-3.793	3.983	0.02	
Pupil's age- 10	-0.734	1.984	-0.370	0.711	-4.623	3.154	-0.16	
Pupil's ethnic group- mixed	-0.201	0.186	-1.076	0.282	-0.566	0.165	-0.04	
Key stage 1 average point score	-0.016	0.016	-1.027	0.305	-0.046	0.015	-0.02	
Eligible for free school meals in the last 6 years	0.010	0.089	0.117	0.907	-0.164	0.185	0.00	
Identified as SEN pupil	0.076	0.114	0.664	0.507	-0.148	0.299	0.02	
English as an additional language	-0.241	0.148	-1.630	0.103	-0.531	0.049	-0.05	

School attainment measure at KS2	0.128	0.075	1.702	0.100	-0.019	0.276	0.05	
School percentage SEN	0.085	0.220	0.385	0.703	-0.346	0.515	0.01	
School percentage FSM	-0.028	0.012	-2.308	0.029	-0.051	-0.004	-0.07	*
School percentage WBR (White British)	-0.004	0.004	-0.997	0.327	-0.012	0.004	-0.03	

Source: NFER In Harmony Evaluation

Table E4: Desire to play/continue playing a musical instrument in a group – including amount of In Harmony time

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
Total IH provision 1-50 hours	2.608	0.294	8.879	0.000	2.033	3.184	0.55	***
Total IH provision 51-100 hours	2.492	0.231	10.785	0.000	2.039	2.944	0.53	***
Total IH provision 101-150 hours	3.459	0.273	12.648	0.000	2.923	3.995	0.73	***
Total IH provision 151 or more hours	4.114	0.357	11.521	0.000	3.414	4.814	0.87	***
Academic year 2013/14	-0.859	0.168	-5.113	0.000	-1.189	-0.530	-0.18	***
Academic year 2014/15	-0.693	0.106	-6.512	0.000	-0.902	-0.484	-0.15	***
Female pupil	0.651	0.082	7.957	0.000	0.491	0.811	0.14	***
Gender unknown	0.570	2.096	0.272	0.786	-3.539	4.679	0.12	
Pupil's ethnic group- Black	0.394	0.166	2.368	0.018	0.068	0.720	0.08	*
Pupil's ethnic group- Asian	0.079	0.179	0.444	0.657	-0.272	0.431	0.02	
Pupil's ethnic group- other	0.391	0.288	1.356	0.175	-0.174	0.955	0.08	
Pupil's ethnic group- Unclear	0.311	0.246	1.266	0.206	-0.171	0.793	0.07	

Pupil's age- 6	-0.447	2.462	-0.182	0.856	-5.272	4.378	-0.09	
Pupil's age- 7	-0.007	2.081	-0.003	0.997	-4.086	4.072	0.00	
Pupil's age- 8	0.330	2.080	0.159	0.874	-3.747	4.407	0.07	
Pupil's age- 9	-0.692	2.081	-0.333	0.739	-4.771	3.386	-0.15	
Pupil's age- 10	-1.437	2.081	-0.691	0.490	-5.515	2.641	-0.31	
Pupil's ethnic group- mixed	-0.212	0.177	-1.197	0.231	-0.560	0.135	-0.05	
Key stage 1 average point score	-0.019	0.015	-1.257	0.209	-0.048	0.011	-0.02	
Eligible for free school meals in the last 6 years	-0.014	0.085	-0.167	0.867	-0.182	0.153	0.00	
Identified as SEN pupil	0.045	0.111	0.404	0.686	-0.172	0.262	0.01	
English as an additional language	-0.198	0.143	-1.391	0.164	-0.478	0.081	-0.04	
School attainment measure at KS2	0.114	0.075	1.515	0.141	-0.034	0.262	0.04	
School percentage SEN	0.104	0.220	0.473	0.640	-0.328	0.536	0.02	
School percentage FSM	-0.038	0.012	-3.153	0.004	-0.062	-0.015	-0.10	**
School percentage WBR (White British)	-0.002	0.004	-0.382	0.705	-0.010	0.006	-0.01	

Source: NFER In Harmony Evaluation

Table E5: Desire to sing/continue singing in a group

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
In Harmony schools	0.651	0.270	2.406	0.023	0.121	1.181	0.11	*
Academic year 2013/14	0.182	0.198	0.920	0.358	-0.206	0.571	0.03	
Academic year 2014/15	-0.352	0.132	-2.666	0.008	-0.612	-0.093	-0.06	**
Female pupil	1.929	0.108	17.783	0.000	1.717	2.142	0.34	***
Gender unknown	6.069	2.930	2.071	0.038	0.326	11.812	1.06	*
Pupil's ethnic group- Black	0.312	0.220	1.418	0.156	-0.120	0.744	0.05	
Pupil's ethnic group- Asian	-0.319	0.236	-1.349	0.177	-0.782	0.144	-0.06	
Pupil's ethnic group- other	-0.003	0.379	-0.007	0.995	-0.745	0.740	0.00	
Pupil's ethnic group- Unclear	-0.174	0.322	-0.539	0.590	-0.806	0.458	-0.03	
Pupil's age- 6	4.578	3.148	1.454	0.146	-1.593	10.748	0.80	
Pupil's age- 7	2.790	2.653	1.052	0.293	-2.410	7.991	0.49	
Pupil's age- 8	2.569	2.653	0.968	0.333	-2.631	7.768	0.45	
Pupil's age- 9	1.497	2.654	0.564	0.573	-3.704	6.698	0.26	
Pupil's age- 10	0.931	2.654	0.351	0.726	-4.270	6.132	0.16	
Pupil's ethnic group- mixed	-0.124	0.236	-0.526	0.599	-0.586	0.338	-0.02	
Key stage 1 average point score	-0.095	0.020	-4.802	0.000	-0.134	-0.056	-0.08	***

Eligible for free school meals in the last 6 years	0.191	0.113	1.685	0.092	-0.031	0.412	0.03	
Identified as SEN pupil	0.232	0.146	1.594	0.111	-0.053	0.518	0.04	
English as an additional language	-0.155	0.188	-0.826	0.409	-0.524	0.213	-0.03	
School attainment measure at KS2	-0.053	0.091	-0.585	0.564	-0.231	0.125	-0.02	
School percentage SEN	0.057	0.264	0.214	0.832	-0.462	0.575	0.01	
School percentage FSM	-0.009	0.014	-0.598	0.555	-0.037	0.020	-0.02	
School percentage WBR (White British)	0.005	0.005	0.962	0.345	-0.005	0.014	0.03	

Source: NFER In Harmony Evaluation

Table E6: Desire to sing/continue singing in a group – including amount of In Harmony time

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
Total IH provision 1-50 hours	0.786	0.346	2.272	0.023	0.108	1.464	0.14	*
Total IH provision 51-100 hours	0.354	0.255	1.389	0.165	-0.146	0.854	0.06	
Total IH provision 101-150 hours	1.185	0.317	3.741	0.000	0.564	1.805	0.21	***
Total IH provision 151 or more hours	1.822	0.431	4.227	0.000	0.977	2.667	0.32	***
Academic year 2013/14	-0.036	0.217	-0.166	0.868	-0.461	0.389	-0.01	

Academic year 2014/15	-0.395	0.136	-2.911	0.004	-0.662	-0.129	-0.07	**
Female pupil	1.932	0.106	18.256	0.000	1.725	2.140	0.34	***
Gender unknown	5.390	2.713	1.987	0.047	0.073	10.707	0.94	*
Pupil's ethnic group- Black	0.252	0.215	1.173	0.241	-0.169	0.673	0.04	
Pupil's ethnic group- Asian	-0.334	0.230	-1.451	0.147	-0.785	0.117	-0.06	
Pupil's ethnic group- other	-0.067	0.372	-0.180	0.858	-0.797	0.663	-0.01	
Pupil's ethnic group- Unclear	-0.150	0.318	-0.472	0.637	-0.773	0.473	-0.03	
Pupil's age- 6	4.225	3.185	1.327	0.185	-2.017	10.467	0.74	
Pupil's age- 7	2.308	2.693	0.857	0.392	-2.971	7.586	0.40	
Pupil's age- 8	2.052	2.692	0.762	0.446	-3.224	7.328	0.36	
Pupil's age- 9	1.007	2.692	0.374	0.708	-4.270	6.284	0.18	
Pupil's age- 10	0.443	2.692	0.164	0.869	-4.834	5.719	0.08	
Pupil's ethnic group- mixed	-0.134	0.229	-0.585	0.558	-0.583	0.315	-0.02	
Key stage 1 average point score	-0.099	0.019	-5.137	0.000	-0.137	-0.062	-0.08	***
Eligible for free school meals in the last 6 years	0.178	0.110	1.616	0.106	-0.038	0.395	0.03	
Identified as SEN pupil	0.232	0.143	1.621	0.105	-0.048	0.512	0.04	
English as an additional language	-0.112	0.184	-0.608	0.543	-0.473	0.249	-0.02	
School attainment measure at KS2	-0.067	0.083	-0.806	0.427	-0.229	0.095	-0.02	

School percentage SEN	0.073	0.242	0.302	0.765	-0.401	0.546	0.01	
School percentage FSM	-0.016	0.013	-1.202	0.239	-0.042	0.010	-0.03	
School percentage WBR (White British)	0.006	0.005	1.401	0.172	-0.003	0.015	0.04	

Source: NFER In Harmony Evaluation

Table E7: Key stage 1 average point score

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
In Harmony schools	-0.551	0.201	-2.735	0.012	-0.945	-0.156	-0.12	*
Academic year 2013/14	-0.063	0.080	-0.787	0.432	-0.219	0.094	-0.01	
Academic year 2014/15	6.743	0.157	43.023	0.000	6.436	7.050	1.44	***
Prior attainment at Foundation stage profile	3.631	0.076	48.049	0.000	3.483	3.779	1.10	***
Female pupil	-0.134	0.065	-2.062	0.039	-0.261	-0.007	-0.03	*
Eligible for free school meals in the last 6 years	-0.579	0.067	-8.597	0.000	-0.711	-0.447	-0.12	***
Free school meals eligibility missing data	-2.359	0.948	-2.489	0.013	-4.217	-0.501	-0.50	*
Pupil's ethnic group- Black	0.161	0.121	1.332	0.183	-0.076	0.397	0.03	
Pupil's ethnic group- Asian	0.228	0.129	1.771	0.077	-0.024	0.481	0.05	
Pupil's ethnic group- Chinese	0.561	0.388	1.443	0.149	-0.201	1.322	0.12	
Pupil's ethnic group- mixed or other	0.200	0.114	1.751	0.080	-0.024	0.424	0.04	
Pupil's ethnic group- Missing/Unclear	1.197	0.400	2.992	0.003	0.413	1.981	0.26	**
English as an additional language	0.112	0.097	1.151	0.250	-0.079	0.303	0.02	
English as an additional language- missing data	-0.968	0.915	-1.058	0.290	-2.760	0.825	-0.21	
Identified as SEN pupil- without Statement	-1.846	0.088	-21.073	0.000	-2.018	-1.675	-0.39	***
Identified as SEN pupil- with statement	-3.939	0.312	-12.616	0.000	-4.551	-3.327	-0.84	***
School percentage FSM	0.809	1.194	0.677	0.505	-1.531	3.149	0.02	
School percentage SEN	0.656	1.131	0.580	0.567	-1.560	2.872	0.02	

School percentage EAL	-1.390	1.218	-1.142	0.265	-3.777	0.997	-0.13	
School percentage WBR (White British)	-0.805	1.149	-0.700	0.491	-3.058	1.448	-0.08	
Academy school	-0.437	0.656	-0.666	0.512	-1.723	0.849	-0.09	
Voluntary school	0.125	0.281	0.444	0.661	-0.426	0.676	0.03	
School KS1to2 VA performance band 2013 (2nd lowest 20%)	-0.658	0.388	-1.694	0.103	-1.419	0.103	-0.14	
School KS1to2 VA performance band 2013 (middle 20%)	-0.020	0.418	-0.048	0.962	-0.839	0.798	0.00	
School KS1to2 VA performance band 2013 (2nd highest 20%)	0.364	0.405	0.899	0.378	-0.430	1.159	0.08	
School KS1to2 VA performance band 2013 (highest 20%)	0.362	0.365	0.994	0.330	-0.352	1.077	0.08	
School KS1to2 VA performance band 2013-missing	0.082	0.535	0.154	0.879	-0.967	1.131	0.02	

Source: NFER In Harmony Evaluation

Table E8: Key stage 1 average point score – including amount of In Harmony time

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
Total IH provision 1-50 hours	0.279	0.253	1.102	0.270	-0.217	0.774	0.06	
Total IH provision 51-100 hours	-0.079	0.229	-0.346	0.730	-0.529	0.370	-0.02	
Total IH provision 101-150 hours	0.298	0.295	1.012	0.312	-0.280	0.876	0.06	
Total IH provision 151 or more hours	-0.342	0.200	-1.707	0.088	-0.735	0.051	-0.07	
Academic year 2013/14	-0.033	0.082	-0.400	0.689	-0.193	0.127	-0.01	
Academic year 2014/15	6.871	0.159	43.326	0.000	6.560	7.182	1.47	***
Prior attainment at Foundation stage profile	3.676	0.076	48.464	0.000	3.527	3.825	1.11	***
Female pupil	-0.117	0.065	-1.799	0.072	-0.245	0.010	-0.03	
Eligible for free school meals in the last 6 years	-0.539	0.067	-7.990	0.000	-0.671	-0.407	-0.12	***
Pupil's ethnic group-Black	0.121	0.121	0.998	0.318	-0.117	0.359	0.03	
Pupil's ethnic group-Asian	0.141	0.129	1.089	0.276	-0.112	0.393	0.03	
Pupil's ethnic group-Chinese	0.513	0.390	1.315	0.189	-0.252	1.278	0.11	
Pupil's ethnic group-mixed or other	0.153	0.115	1.333	0.182	-0.072	0.377	0.03	
Pupil's ethnic group-Missing/Unclear	-1.254	0.211	-5.929	0.000	-1.668	-0.839	-0.27	***
English as an additional language	0.171	0.097	1.754	0.080	-0.020	0.362	0.04	
Identified as SEN pupil-without Statement	-1.813	0.088	-20.583	0.000	-1.986	-1.641	-0.39	***
Identified as SEN pupil-with statement	-3.835	0.314	-12.227	0.000	-4.450	-3.220	-0.82	***
School percentage FSM	0.595	1.333	0.446	0.659	-2.017	3.206	0.02	
School percentage SEN	0.676	1.222	0.553	0.585	-1.719	3.072	0.02	

School percentage EAL	-0.760	1.072	-0.709	0.485	-2.862	1.341	-0.07	
School percentage WBR (White British)	-0.224	0.925	-0.242	0.811	-2.036	1.589	-0.02	
Voluntary school	0.207	0.291	0.713	0.482	-0.362	0.777	0.04	
School KS1to2 VA performance band 2013 (2nd lowest 20%)	-0.648	0.432	-1.502	0.145	-1.494	0.198	-0.14	
School KS1to2 VA performance band 2013 (middle 20%)	0.036	0.456	0.080	0.937	-0.857	0.929	0.01	
School KS1to2 VA performance band 2013 (2nd highest 20%)	0.409	0.460	0.890	0.382	-0.492	1.310	0.09	
School KS1to2 VA performance band 2013 (highest 20%)	0.473	0.402	1.176	0.250	-0.315	1.261	0.10	
School KS1to2 VA performance band 2013-missing	-0.058	0.514	-0.113	0.911	-1.066	0.949	-0.01	

Source: NFER In Harmony Evaluation

Table E9: Key stage 2 average point score based on reading, maths and writing TA

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
In Harmony schools	-0.244	0.241	-1.013	0.321	-0.716	0.228	-0.04	
Academic year 2013/14	0.588	0.103	5.700	0.000	0.386	0.790	0.10	***
Academic year 2014/15	0.472	0.102	4.623	0.000	0.272	0.673	0.08	***
Key stage 1 average point score	0.796	0.015	54.208	0.000	0.767	0.825	0.66	***
Female pupil	-0.376	0.084	-4.490	0.000	-0.540	-0.212	-0.06	***
Eligible for free school meals in the last 6 years	-0.493	0.088	-5.599	0.000	-0.666	-0.320	-0.08	***
Free school meals eligibility missing data	-2.456	2.807	-0.875	0.382	-7.957	3.045	-0.41	
Pupil's ethnic group-Black	-0.237	0.159	-1.490	0.136	-0.549	0.075	-0.04	
Pupil's ethnic group-Asian	-0.295	0.183	-1.618	0.106	-0.653	0.062	-0.05	
Pupil's ethnic group-Chinese	1.036	0.717	1.446	0.148	-0.368	2.440	0.17	
Pupil's ethnic group-mixed or other	-0.030	0.160	-0.188	0.851	-0.344	0.283	-0.01	
Pupil's ethnic group-Missing/Unclear	-0.892	0.687	-1.298	0.194	-2.238	0.455	-0.15	
English as an additional language	0.906	0.138	6.549	0.000	0.635	1.177	0.15	***
English as an additional language- missing data	1.616	2.625	0.616	0.538	-3.529	6.762	0.27	
Identified as SEN pupil-without Statement	-1.261	0.114	-11.091	0.000	-1.483	-1.038	-0.21	***
Identified as SEN pupil-with statement	-2.788	0.291	-9.569	0.000	-3.359	-2.217	-0.47	***
School percentage FSM	-2.224	1.382	-1.609	0.120	-4.932	0.485	-0.05	
School percentage SEN	1.651	1.278	1.292	0.208	-0.854	4.156	0.04	
School percentage EAL	-2.407	1.308	-1.841	0.078	-4.969	0.156	-0.18	
School percentage WBR (White British)	-1.282	1.198	-1.070	0.295	-3.630	1.066	-0.10	
Academy school	-0.731	0.655	-1.116	0.275	-2.015	0.553	-0.12	
Voluntary school	0.137	0.334	0.410	0.686	-0.518	0.792	0.02	

School KS1to2 VA performance band 2013 (2nd lowest 20%)	0.751	0.461	1.628	0.116	-0.153	1.654	0.13	
School KS1to2 VA performance band 2013 (middle 20%)	1.311	0.486	2.695	0.012	0.358	2.265	0.22	*
School KS1to2 VA performance band 2013 (2nd highest 20%)	1.832	0.483	3.789	0.001	0.884	2.779	0.31	***
School KS1to2 VA performance band 2013 (highest 20%)	2.540	0.433	5.870	0.000	1.692	3.388	0.43	***
School KS1to2 VA performance band 2013-missing	1.969	0.642	3.068	0.005	0.711	3.227	0.33	**

Source: NFER In Harmony Evaluation

Table E10: Key stage 2 average point score based on reading, maths and writing TA – including amount of In Harmony time

School and cohort characteristics	Coefficient	S.E.	T-stat	p-value	95% C. I.		Pseudo-effect size	Sig.
Total IH provision 1-50 hours	-0.268	0.285	-0.939	0.348	-0.826	0.291	-0.04	
Total IH provision 51-100 hours	-0.043	0.217	-0.196	0.845	-0.468	0.383	-0.01	
Total IH provision 101-150 hours	-0.062	0.309	-0.200	0.841	-0.668	0.544	-0.01	
Total IH provision 151 or more hours	0.151	0.175	0.861	0.389	-0.193	0.495	0.03	
Academic year 2013/14	0.566	0.105	5.363	0.000	0.359	0.772	0.09	***
Academic year 2014/15	0.435	0.112	3.887	0.000	0.216	0.655	0.07	***
Key stage 1 average point score	0.796	0.015	54.113	0.000	0.767	0.825	0.66	***
Female pupil	-0.374	0.084	-4.463	0.000	-0.538	-0.210	-0.06	***
Eligible for free school meals in the last 6 years	-0.494	0.088	-5.603	0.000	-0.666	-0.321	-0.08	***
Free school meals eligibility missing data	-2.509	2.807	-0.894	0.371	-8.012	2.993	-0.42	

Pupil's ethnic group-Black	-0.243	0.159	-1.527	0.127	-0.555	0.069	-0.04	
Pupil's ethnic group-Asian	-0.288	0.183	-1.578	0.115	-0.646	0.070	-0.05	
Pupil's ethnic group-Chinese	0.990	0.718	1.379	0.168	-0.417	2.397	0.17	
Pupil's ethnic group-mixed or other	-0.024	0.160	-0.150	0.881	-0.338	0.290	0.00	
Pupil's ethnic group-Missing/Unclear	-0.882	0.687	-1.284	0.199	-2.229	0.465	-0.15	
English as an additional language	0.907	0.138	6.555	0.000	0.636	1.179	0.15	***
English as an additional language- missing data	1.638	2.626	0.624	0.533	-3.509	6.785	0.27	
Identified as SEN pupil-without Statement	-1.262	0.114	-11.098	0.000	-1.485	-1.039	-0.21	***
Identified as SEN pupil-with statement	-2.797	0.292	-9.586	0.000	-3.369	-2.225	-0.47	***
School percentage FSM	-2.499	1.416	-1.765	0.089	-5.274	0.276	-0.06	
School percentage SEN	1.648	1.310	1.259	0.219	-0.919	4.215	0.04	
School percentage EAL	-2.375	1.333	-1.782	0.086	-4.987	0.237	-0.18	
School percentage WBR (White British)	-1.215	1.219	-0.997	0.328	-3.604	1.174	-0.10	
Academy school	-0.585	0.661	-0.885	0.384	-1.882	0.711	-0.10	
Voluntary school	0.154	0.341	0.451	0.656	-0.515	0.822	0.03	
School KS1to2 VA performance band 2013 (2nd lowest 20%)	0.774	0.471	1.645	0.112	-0.148	1.696	0.13	
School KS1to2 VA performance band 2013 (middle 20%)	1.328	0.497	2.672	0.013	0.354	2.301	0.22	*
School KS1to2 VA performance band 2013 (2nd highest 20%)	1.835	0.493	3.721	0.001	0.868	2.801	0.31	***
School KS1to2 VA performance band 2013 (highest 20%)	2.576	0.443	5.817	0.000	1.708	3.444	0.43	***
School KS1to2 VA performance band 2013-missing	1.936	0.655	2.954	0.007	0.651	3.220	0.32	**

Source: NFER In Harmony Evaluation

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- insights
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NFER ref. ACII
Public

ISBN. 978-1-911039-24-2

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