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Interim Report

Evaluation of In Harmony:

Year 2

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Evaluation of In Harmony: Year 2 Interim Report

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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 inspired by the Venezuelan El Sistema, the goal of which is to change the lives of children in exceptionally deprived circumstances. The In Harmony programme 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 funded by the Department for Education (DfE) and Arts Council England (ACE), and is currently being piloted in six areas in England. See

<http://www.artscouncil.org.uk/funding/apply-funding/funding-programmes/harmony/>.

About the national evaluation

NFER is undertaking a longitudinal national evaluation of In Harmony. The aims are 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 underpin the evaluation. The NFER research team is conducting a series of pupil questionnaires, an analysis of provision and participation data, and case study visits.

About this report

This Year 2 Interim Report presents findings from three sources: i) the second year of the pupil survey, ii) an analysis of the In Harmony provision and participation data (collected from autumn 2012 to summer 2014), and iii) an analysis of school attendance data.

Key findings

- In Harmony continues to support pupils' music-making, musical enjoyment, social wellbeing and positive aspirations.
- Pupils continue to enjoy music at the same high levels as reported in last year's survey. They say they are making good progress with their instruments and singing. They also feel their classroom teachers know a lot about music – a possible indication of how In Harmony is supporting teachers' musical confidence and skills.
- In Harmony children have positive future aspirations – indeed, children who completed the survey both last year and this year are even more positive about their futures than they were one year ago.
- That said, pupils' enjoyment of school and learning has declined very slightly from its previously high level (that is, by a small but statistically significant amount). It is difficult to know whether this has been influenced by their participation in In Harmony. An alternative possible explanation is that enjoyment of school and learning may be influenced by a maturation effect, as previous research (Lord and Jones, 2006) shows

that children's attitudes towards schooling tend to become more negative as they grow older¹.

- The amount of In Harmony provision varies across schools. In Harmony programmes are increasingly offering extracurricular activities, in addition to curriculum delivery. These additional activities are engaging children from the core In Harmony primary schools, children from neighbouring primary schools, and those who have moved on to secondary school. Some schools report large numbers of their children (e.g. over 75 children, which in two schools is over one-third of their children) engaging with In Harmony activities outside normal class time.

Discussion and concluding comments

Three areas warrant further discussion.

i) Tracking trends in children's attitudes

The sustaining power of In Harmony to maintain children's musical engagement and enhance their future aspirations is evident among the In Harmony children this year compared with last year². The positive influence of the 'start-up' effect noted among the newer In Harmony areas last year has waned; overall, children are slightly less keen to continue learning their instrument in a group in the future than they were last year. Instead, it seems that 'embedding' effects may be surfacing – children in the more established In Harmony areas have a slightly higher desire to continue with their instrument than children in the other In Harmony areas. This may be related to more established transition routes and out-of-school orchestras in the two more mature In Harmony programmes, whereby pupils have clear pathways for continuing with their music when they leave primary school. It will be important to monitor how these trends continue over time. It will also be important to capture the responses of children in comparison schools in the 2015 survey to understand the effect of maturation and changes over time.

ii) Trends in the nature of provision

Most schools have continued to offer similar amounts of curriculum time to pupils over the course of the programme, representing between two and four hours per week for most of the year groups involved. However three have slightly reduced curriculum time by about half an hour per week and the nursery school has increased provision to six hours per week.

The large proportions of children engaging in substantial amounts of In Harmony activity outside curriculum time highlights the commitment of pupils, families and schools to the programme. Continuing to track trends in provision will be important throughout 2015, not least to see whether amount and nature of provision is related to children's attainment and attendance at school.

iii) Pupils' musical progress

Responses to the new questions included in the survey this year indicate that In Harmony children are very positive about their progress with playing instruments and singing. They

¹ The Y2 cohort has a slightly older age profile than the Y1 cohort; and the matched sample of pupils is one year older.

² Although in the absence of a comparison group this year, we do not know how these trends would compare to those of other children.

also believe their classroom teachers have good musical knowledge. That said, there appears to be a small proportion of children in In Harmony schools who are struggling to enjoy music (one-fifth) or feel they are making little progress with their instruments or with singing (one-tenth). It would seem important for In Harmony providers to identify and support these children further to improve their musical enjoyment and progress.

1 Introduction

1.1 About In Harmony

1.1.1 The In Harmony programme

In 2012, ACE appointed six organisations to run In Harmony projects in some of the most deprived areas of England. In Harmony is a transformational programme that provides immersive musical experiences for children and young people from disadvantaged communities. It is inspired by the Venezuelan El Sistema, which aims to transform the lives of children in exceptionally deprived circumstances through the power and disciplines of community-based orchestral music-making. The orchestral structure enables young musicians to play together in a single ensemble, allowing for the development of leadership and supportive roles, and providing opportunities for smaller groups to play together. Several El Sistema-influenced projects have been established in countries around the world³.

Since April 2012, In Harmony has been jointly funded by the Department for Education (DfE) and Arts Council England (ACE). 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 projects, children play instruments together several times a week from an early age, within a whole school and/or community-based approach. The projects are expected to demonstrate how the lives of children and families can be transformed by the In Harmony approach, while representing local responses to specific circumstances and contexts. The projects are also expected to plan for sustainability of the programme in the longer term.

Two of the organisations operating In Harmony have been pilot schemes since 2008 – these are located in Liverpool and Lambeth⁴. The four additional schemes commissioned in 2012 are located in Newcastle, Nottingham, Leeds, and Telford and Wrekin/Stoke-on-Trent. The six projects are managed in different ways – two by Music education hub lead organisations, three by National Portfolio Organisations (NPOs), and one through a local authority/NPO partnership. In total, 11 primary schools and one nursery school are engaged in the main In Harmony provision; but expansion to out-of-school provision, neighbouring schools and secondary school transition work means that In Harmony is now reaching substantially more children.

³ The El Sistema USA website lists 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>.

1.1.2 Policy context

The 2011 National Plan for Music (DfE and DCMS, 2011) noted the initial success of the In Harmony pilots that started in 2008, 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)

There have been other important developments in English music education since the inception of In Harmony and 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. The 2013 Ofsted report recognised that Music education hubs had brought new energy, collaborative approaches and vitality to working musically with young people in their first year. However, Ofsted highlighted the long-standing problem of low standards and patchy provision for music in schools. It concluded that too little progress had been made and challenged Music education hubs to act as 'champions, leaders and expert partners' of schools in addressing these problems (Ofsted, 2013).

Like Music education hubs, In Harmony aims to provide children with access to high-quality music education. But in contrast to the 'universal' remit of the Music 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.

1.1.3 Evidence of effectiveness

A review of research and other literature on El Sistema programmes worldwide (Creech et al, 2013) pointed out that many programmes were in the early stages of implementation, and evaluations were largely small scale and qualitative. Nevertheless, the authors found that evidence was supportive of the programme and identified a range of positive outcomes of El Sistema and programmes inspired by El Sistema. These encompassed children and young people achieving musical excellence as well as social and emotional development, raised aspirations and academic attainment, and community engagement.

Similarly, an evaluation (GEN, 2011) of the El Sistema-inspired Big Noise Orchestra located in Raploch – a deprived area of Scotland – found that it was too early to tell whether the programme would have positive impacts on children's academic performance, employability or social cohesion. However, it found 'strong evidence' that Big Noise Orchestra offered a 'positive and unique' experience that enriches the lives of children and, in many cases, their families. A subsequent 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 evaluations of In Harmony, an early evaluation (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. Burns and Bewick (2013) reported on the fourth year of the In Harmony programme based in Liverpool. The authors point out the challenges of attributing positive outcomes to the programme; however, they found 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 previous interim report of the national evaluation of In Harmony across all six areas of England (Lord et al, 2013) echoed these findings. 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 and confidence in visiting cultural venues, and increased engagement with school. The interim 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.

1.2 About the national evaluation

1.2.1 Aims

The NFER longitudinal evaluation aims to explore the impacts of the current six In Harmony programmes in order to inform the future development of the initiative. The aims are 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, and
- the extent of progress made by the different programmes in attracting investment to underpin future sustainability of In Harmony.

Appendix A provides the set of eight research questions and eight outcome indicators which underpin the evaluation.

1.2.2 Evaluation methods

Figure 1 shows the overall evaluation design. The design includes:

- a series of pupil questionnaires including a comparison group to explore perceived outcomes
- an analysis of provision data, to explore whether differences in amount of provision affects pupil outcomes

- case study visits to highlight transformational journeys and inspirational practice
- the collection of relevant project planning documentation to help assess future viability, and
- an analysis of data from the National Pupil Database 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.

We have just completed Year 2 of the evaluation – highlighted in orange in Figure 1 (on the next page).

1.3 About this report

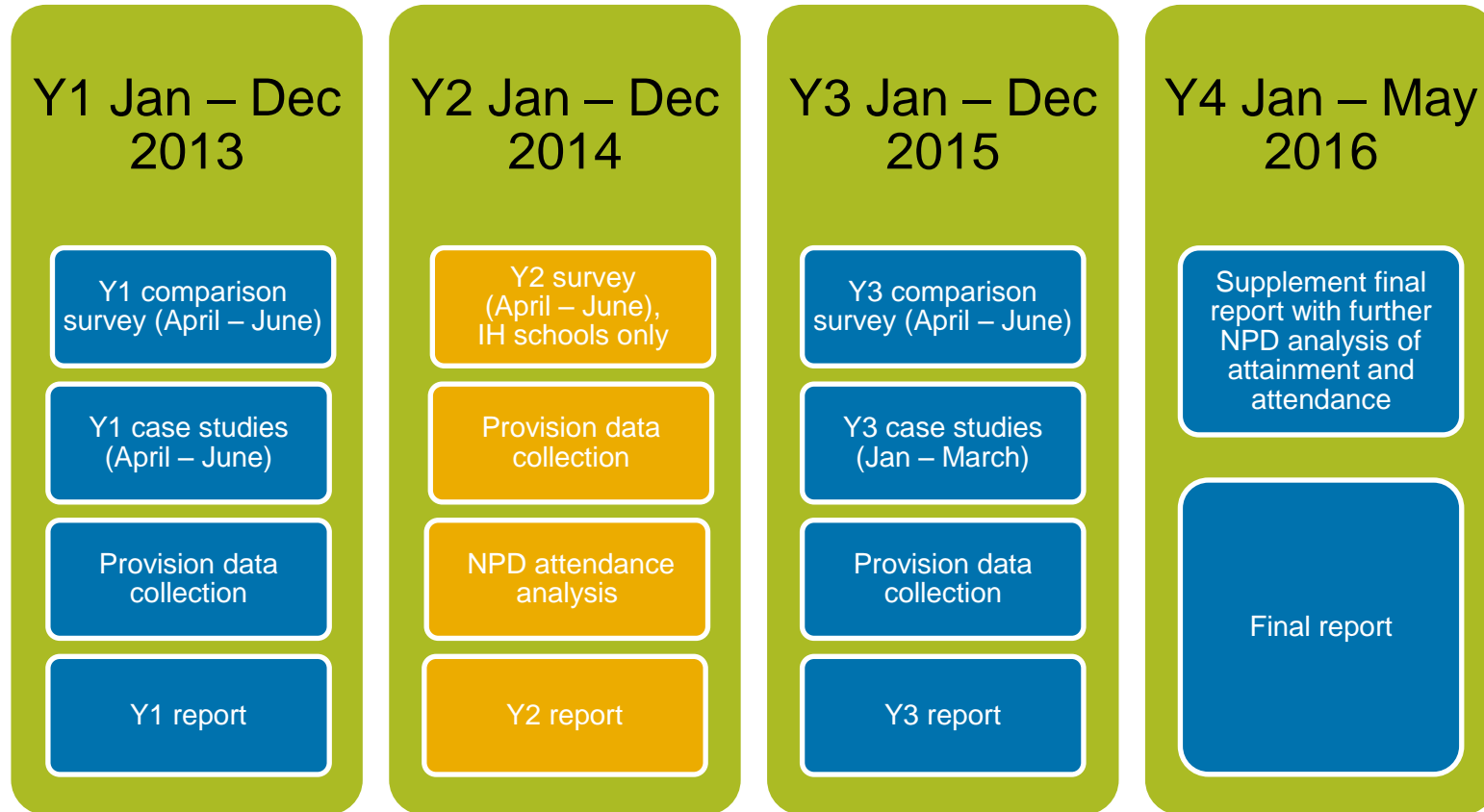
This Interim Report presents the findings from the second year of the evaluation. It is based on data from the Y2 pupil survey (conducted in summer 2014) (see Appendix B for details), In Harmony provision data (relating to the period from autumn 2012 to summer 2014), and an analysis of pupil attendance data using the National Pupil Database⁵ (NPD) data and a comparison group.

This year's report focuses on the following research questions (RQs):

- RQ2: Are children's musical enjoyment and musical skills improved through involvement in In Harmony?
- RQ3: 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?
- RQ4: Do pupils attend school more regularly than their peers in comparison with schools not involved in In Harmony?

⁵ The National Pupil Database contains school absence rates and individual pupil-level absence records for children over the age of five. School absence is measured as authorised, unauthorised and overall absence, and is measured per session. A session is either a morning or an afternoon in school.

Figure 1: A summary of the evaluation design and reporting



2 Findings from the Y2 pupil survey

The theory of change for In Harmony sets out the outcomes that would be expected to be seen as a result of participation in the programme. These include children in In Harmony making greater progress, compared with those from similar backgrounds, in areas including musical skills and wellbeing. This section explores the progress being made so far towards these anticipated outcomes through a set of agreed outcome measures for the project. In the absence of a comparison group this year, we cannot say to what extent the findings outlined in this section are related to participating in In Harmony and to what extent they reflect trends in children's wider attitudes. Rather, the results provide a snapshot in time of In Harmony children's views (i.e. responses from the Y2 survey) which can be compared with In Harmony children's views from one year ago (i.e. responses from the Y1 survey).

Key findings

- In Harmony continues to support pupils' music-making, musical enjoyment, social wellbeing and positive aspirations.
- Pupils continue to enjoy music at the same high levels as reported in last year's survey. Indeed, In Harmony children appear to be confident young musicians, enjoying music and reporting making good progress playing instruments and singing. They report learning a lot in music, and they think their classroom teachers know a lot about music – a possible indication of how In Harmony is also supporting teachers' musical confidence, knowledge and skills.
- In Harmony children also appear to have positive future aspirations – in fact, attitudes towards the future have become more positive among pupils who filled in the survey in both years. That said, pupils' enjoyment of school and learning, and their sense of security and happiness, appear to have declined slightly (by a small but statistically significant amount) over the same time period.
- There has been a slight overall decline this year in the In Harmony children's desire to continue to play an instrument in a group, which could be influenced by their recognition of the hard work involved in playing an instrument. However, pupils in the longer-standing In Harmony areas⁶ are more positive about this than their peers. This could be influenced by the fact that these areas have more established transition pathways for children to continue playing their instruments when they leave primary school.

This section presents the findings from the Y2 pupil survey. The survey aimed to investigate any changes in In Harmony pupils' attitudes over time. The survey asked the same questions as the Y1 survey, with the addition of a small number of new

⁶ Liverpool and Lambeth.

questions to explore the children’s perceptions of their musical progress. A total of 680 key stage 2⁷ pupils from across the 11 In Harmony schools completed the survey in the summer term 2014 (i.e. in Year 2 of the evaluation). Of these, 278 completed the survey in both Y1 and Y2 (referred to as the matched sample). There was no comparison group survey this year. NFER researchers conducted factor analysis using the same factor items as last year, for both the year-on-year cohort and the matched sample. Appendix B provides further details of the Y2 cohort and matched samples, and further explanation of the factor analysis.

The overall results from the factor analysis are presented in Table 1, Section 2.1. Section 2.2 then presents the results relating to musical enjoyment and skills (research question 2), and Section 2.3 presents the results relating to children’s wellbeing (research question 3). Section 2.4 presents the results from the new items on music included in this year’s survey.

2.1 Overall trends

Table 1: Trends in factor scores for In Harmony

Factor	Y2 cohort (680 pupils) compared with Y1 cohort (905 pupils)	Matched sample Y2 compared with Y1 (285 pupils) ⁸
1) Self-assurance, security and happiness	p<.01 ↓	No change*
2) Application of self to learning	p<.001 ↓	No change*
3) Enjoyment of school and learning	p<.001 ↓	p<.05 ↓
4) Outlook on life	No change*	No change*
5) View of future prospects	No change*	p<.01 ↑
6) Musical enjoyment and achievement	No change*	No change*
7) Desire to play/continue playing a musical instrument in a group	p<.001 ↓	p<.001 ↓
8) Desire to sing/continue singing in a group	No change*	No change*

⁷ The survey was designed for key stage 2 pupils, so pupils attending the nursery school involved in In Harmony did not take part.

⁸ This is a sub-set of the 680 pupils who completed the survey in Y2. See Figure 8, in Appendix B.

*Source: NFER In Harmony Year 2 pupil survey factor analyses, and NFER In Harmony Y1 pupils survey (In Harmony pupils only) factor analyses. *No statistically significant change.*

Table 1 shows the results for all eight factors analysed – five social wellbeing factors (1–5) and three musical factors (6–8). Column 2 provides the results from the cohort analysis over time (i.e. comparing the responses of the 680 In Harmony pupils who completed the survey in Y2 with those of the 905 In Harmony pupils who completed the survey in Y1). Column 3 presents the results from the matched sample over time (i.e. tracking the responses of the 278 pupils who completed the survey in both Y1 and Y2). Note, the matched sample is a sub-set of the 680 pupils who completed the survey in Y2.

As Table 1 shows, some factor scores have decreased this year, while others have remained the same or increased. We know from existing research that children’s enjoyment of school and learning tends to decrease as they progress through primary school (Galton et al, 1999; Lord and Jones, 2006), and, indeed, children in the matched sample, now one year older, have lower scores for enjoying school and learning than they did last year. (See Section 2.3.1 for further discussion of these trends in pupils’ learning.) However, Table 1 also shows that despite this anticipated decline in attitudes, children’s musical enjoyment and achievement remains at its previous high level, as does their outlook on life and expectations of their future prospects⁹. Analysis against the comparison sample in next year’s survey will help us to understand these trends further.

⁹ Children’s views’ of their future prospects became more positive in the matched sample.

2.2 Enhancing children’s musical enjoyment and musical skills

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

Outcome indicator 3: pupils’ enjoyment of music and their progress in musical skills is enhanced.

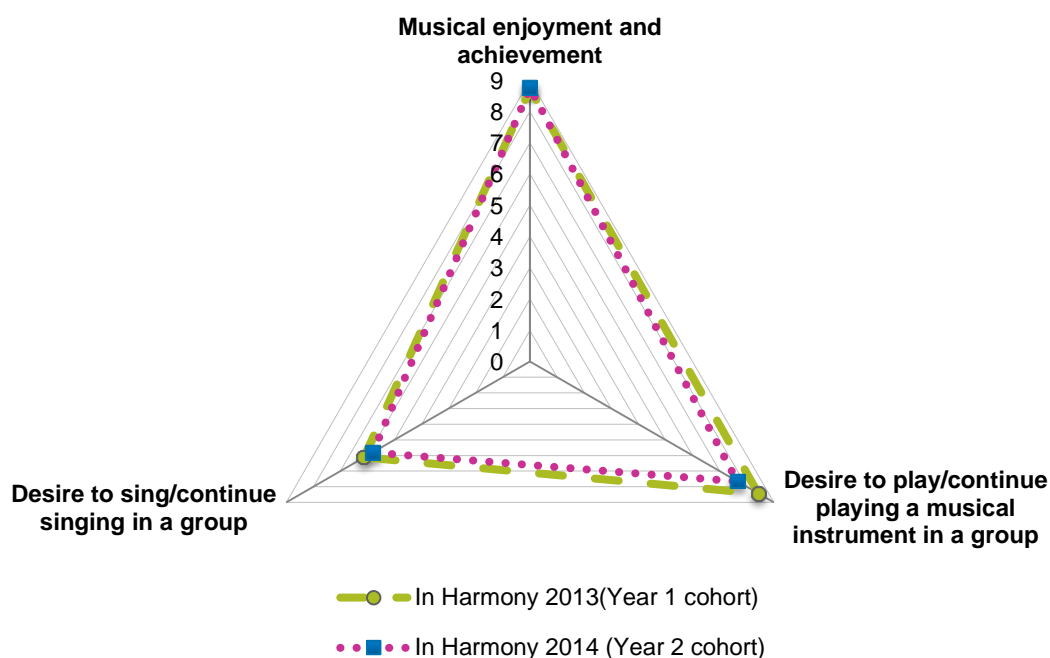
Musical factors analysed: musical enjoyment and achievement; desire to play and/or continue playing a musical instrument in a group; desire to sing and/or continue singing in a group.

2.2.1 Musical factors: year-on-year trends

Figure 2 shows the results of the factor analysis for the three musical factors in Y1 (shown as a green dashed line) and in Y2 (shown as a pink dotted line). The three musical factors are presented as three facets of a radar diagram; the strength of the factor scores can be seen, both relative to each other and over time.

Figure 2: Musical factors Y1 and Y2 compared

Musical outcomes



Source: NFER In Harmony Year 2 pupil survey 2014 factor analyses, and NFER In Harmony Y1 pupils survey 2013 (In Harmony pupils only) factor analyses.

As shown in Figure 2, pupils continue to score highly on musical factors. In Harmony children appear to be confident young musicians, enjoying music and wanting to continue (i.e. all factor scores are very positive). According to the factor analysis comparing the Y1 and Y2 cohorts:

- musical enjoyment and achievement remains high – there has been no statistically significant change since last year
- children’s desire to continue to play an instrument in a group remains high, but has decreased by a small but statistically significant amount compared to 2013, and
- children’s desire to continue to sing in a group remains steady, with no statistically significant change between 2013 and 2014.

This year-on-year pattern was the same for the matched sample.

As reported last year, the high baseline for children’s enjoyment of music has limited the capacity for these scores to increase in the future; i.e. In Harmony pupils already liked being involved in music and had very positive attitudes towards music at the start of the programme (Lord et al, 2013). It will be important to explore the trends with the comparison group next year to see how the attitudes of pupils involved in In Harmony compare to those of pupils in similar schools who have not taken part in the programme.

The slight decline in children’s desire to continue to play an instrument in a group prompts a number of questions: i) Has the initial excitement of being involved in the programme waned?; ii) Does this reflect the hard work involved in learning an instrument?; iii) Is the programme sufficiently varied and engaging? It is also interesting to note that pupils’ responses to other questions in the survey indicate that they are not as positive about engaging with music in the future as they are about music now (see Section 2.4).

2.2.2 Differences between the more established In Harmony areas and the newer In Harmony areas

Last year, and contrary to expectations, pupils in the more established In Harmony areas¹⁰ had statistically significantly *less positive* attitudes on two of the musical factors (i.e. musical enjoyment and achievement, and desire to play/continue to play a musical instrument in a group) than those in the newer In Harmony schools. One possible explanation for the higher scores obtained from the newly appointed In Harmony areas was that of the ‘start-up’ effect – children’s attitudes could have been influenced by the initial publicity and excitement of a new initiative, whereas the novelty of taking part in musical activities may have lessened for children in the more established areas. This year, the gap in pupils’ musical enjoyment across the In Harmony areas has closed. However, this year’s results indicate that pupils in the more established In Harmony areas now score more highly on their desire to continue to play their musical instrument in a group. It is possible that this could

¹⁰ Liverpool and Lambeth.

result from the more established programmes (Liverpool and Lambeth) having clearer transition pathways so pupils can visualise themselves continuing to play their instruments when they leave primary school.

2.3 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?

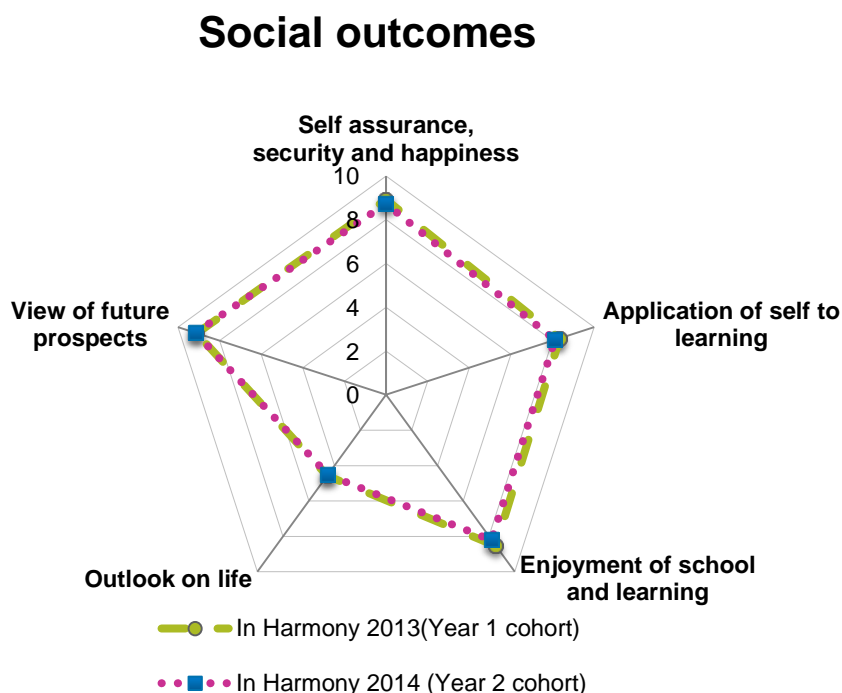
Outcome indicator 1: pupils’ attitudes to learning, self-confidence/self-esteem, wellbeing and aspirations improve.

Wellbeing factors analysed: self-assurance, security and happiness; application of self to learning; enjoyment of school and learning; outlook on life; view on future prospects.

2.3.1 Wellbeing factors: year-on-year trends

Figure 3 shows the results of the factor analysis for the five wellbeing factors in Y1 (shown as a green dashed line) and in Y2 (shown as a pink dotted line). The five wellbeing factors are presented as five facets of a radar diagram; the strength of the factor scores can be seen, both relative to each other and over time.

Figure 3: Social factors Y1 and Y2 compared



Source: NFER In Harmony Year 2 pupil survey 2014 factor analyses, and NFER In Harmony Y1 pupils survey 2013 (In Harmony pupils only) factor analyses.

As shown in Figure 3, pupils continue to score highly on nearly all measures of social/wellbeing outcomes in 2014, mirroring the results from 2013. As last year, outlook on life is the only factor that is relatively low, compared to the other factors. According to the factor analysis comparing the Y1 and Y2 cohorts:

- children's view of future prospects remains high – moreover, the scores of the matched sample have increased by a small and statistically significant amount, and
- children's outlook on life remains steady – there has been no statistically significant change from 2013 to 2014.

The following three factors have declined by a small but statistically significant amount, i.e. the Y2 respondents appear to be less positive about their current situation than the Y1 In Harmony respondents:

- children's self-assurance, security and happiness
- children's application of self to learning, and
- children's enjoyment of school and learning (this has decreased by a small statistically significant amount for the matched sample too).

It will be important to explore these trends in the comparison group in future. If In Harmony is having a positive impact on pupils' attitudes, we would expect to see the attitudes of pupils in the In Harmony schools decline less sharply than those in the comparison group. (The next pupil survey will take place in the summer of 2015.)

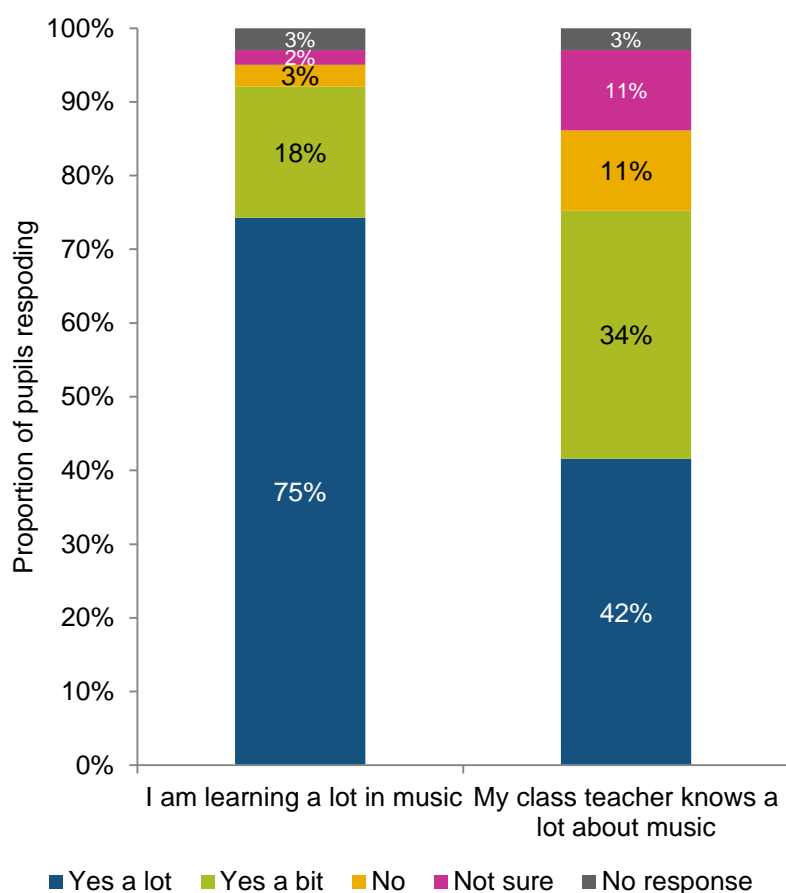
2.3.2 Differences between the more established In Harmony areas and the newer In Harmony areas

Last year, In Harmony children in Liverpool and Lambeth schools scored significantly higher on two of the wellbeing factors than children in the newer In Harmony schools. These were application of self to learning and view of future prospects. This year, there are no significant differences between the In Harmony areas on social and wellbeing factors.

2.4 Children's musical enjoyment and skills: additional detail

In the Y2 survey, we took the opportunity to find out about some specific areas of musical progress and achievement (not asked through the comparison group survey in Y1 of the evaluation). The findings from these new questions are shown in Figures 4–6. The findings are based on the 680 In Harmony pupils who completed the Y2 survey.

Figure 4: Children’s perceptions about learning music



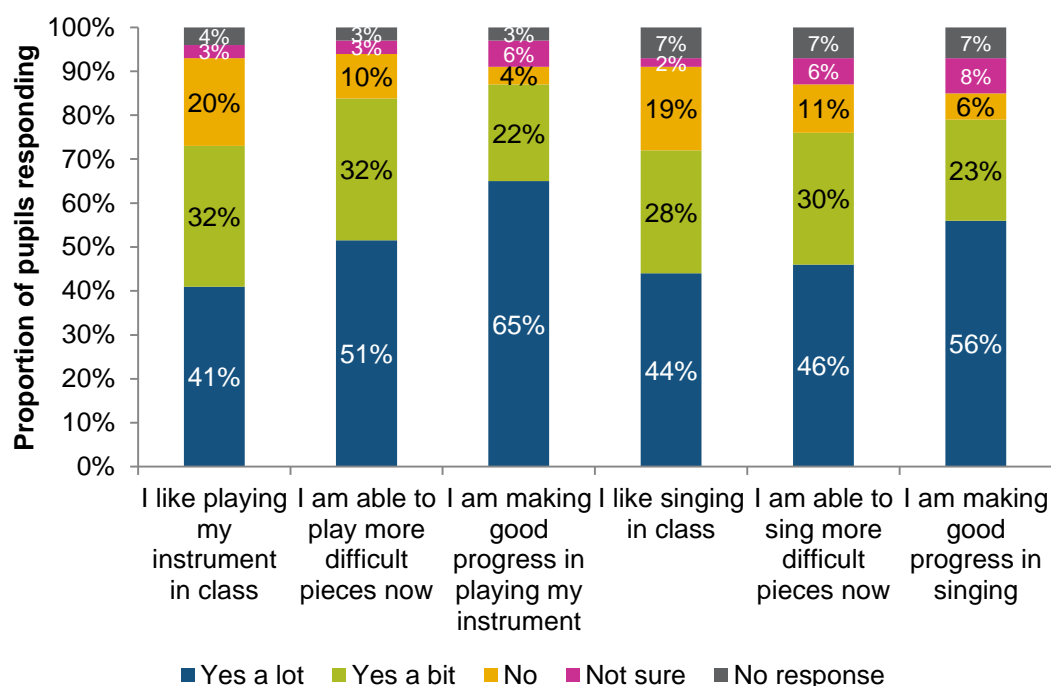
Source: NFER In Harmony Year 2 pupil survey 2014.

The survey asked children about their learning in music, and for their views on their class teacher’s knowledge of music. As Figure 4 shows, the majority of children feel they are learning a lot in music – 75 per cent of this year’s respondents say ‘yes, a lot’¹¹. As an indication of how In Harmony might be helping to support and develop classroom teachers’ musical confidence, knowledge and skills, just over two-fifths (42 per cent) of pupils feel that their class teacher knows ‘a lot’ about music, and a further third (34 per cent) think their class teacher knows ‘a bit’ about music.

We also asked pupils about their musical progress (see Figure 5).

¹¹ Indeed, this was the most positive response to any of the questions on how much they like learning and practising music.

Figure 5: Children’s perceptions of their progress with playing instruments and singing

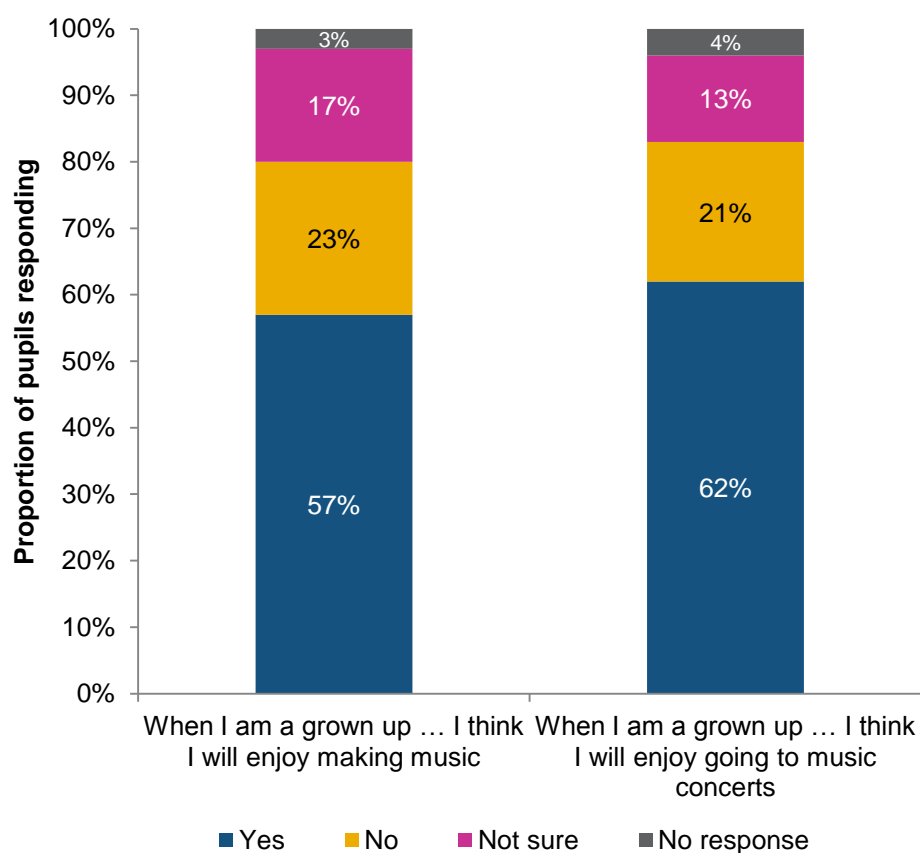


Source: NFER In Harmony Year 2 pupil survey 2014.

As Figure 5 shows, In Harmony pupils are positive about singing, and even more so about playing instruments. They are particularly positive about the progress they are making with their instruments (65 per cent say ‘yes a lot’, and only 4 per cent say ‘no’), and that they are able to play more difficult pieces now (just over half, 51 per cent, agree with this ‘a lot’). However, responses from one-fifth of the pupils suggest they do not like playing their instrument in class, and similarly around one-fifth do not like singing in class. It might be instructive to investigate further what is causing some children to record negative responses to these questions: for example, is it the whole class approach, the classroom environment *per se*, or something else?

We also asked children about the sort of engagement they think they will have with music in the future (see Figure 6).

Figure 6: Children’s perceptions of engaging with music in the future



Source: NFER In Harmony Year 2 pupil survey 2014.

As Figure 6 shows, pupils are reasonably positive about their future engagement with music: 57 per cent think they will enjoy making music when they are a grown-up, and 62 per cent believe they will enjoy going to music concerts. However, while positive, these responses are a little lower than pupils’ enjoyment of music now (for example, 86 per cent said they like listening to music, and 68 per cent said they like playing music and singing, in response to engagement in current activities).

3 In Harmony provision in schools to date

The theory of change for In Harmony sets out the target groups for whom In Harmony will have a positive impact, the whole school and ensemble approach to music-making, and the strategies and resources that are involved. These include free orchestral tuition from professional musicians, musical instruments provided to children, and involvement of whole cohorts of children. This section explores how the amount of In Harmony provision is being deployed across the projects and schools, across year groups, and within curricular and extracurricular time. Next year, we will explore how the amount of provision affects outcomes.

Key findings

- Most In Harmony tuition is provided in curriculum time – on average two to four hours a week in school time.
- The total amount of In Harmony curriculum provision varies across schools and year groups, from five to 75 hours per pupil per term across the time period autumn 2012 to summer 2014.
- With the exception of the autumn term 2012 (when some projects had only just started, with limited provision), most schools have kept the amount of In Harmony provision fairly steady each term. However, in the most recent months (spring and summer 2014), some schools have slightly reduced their curriculum provision for In Harmony (for example, down from 3.5 hours a week to three in one of these schools).
- Most schools involve all their year groups, although in Nottingham, key stage 1 pupils do not generally take part. In some schools younger children receive less provision than older children. In other schools, both the youngest and oldest children receive less provision while those in between receive more.
- In Harmony programmes are increasingly offering extracurricular activities in addition to curriculum delivery. Last academic year (2012–3), three of the 12 schools offered regular In Harmony provision outside curriculum time. In 2013–4, a further five schools offered regular extracurricular In Harmony activity. The former three schools continued to offer the highest number of extracurricular hours in 2014.
- In some schools, a large proportion of pupils are participating in the extracurricular offer (for example, over one-third of children in two of the schools).

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. The detail of the approach, however, is different in each school. In Harmony programme managers and schools

provide data to NFER at the start of each term for the previous term’s provision (including any school holiday provision). We have so far collated termly data for the period autumn 2012 to summer 2014.

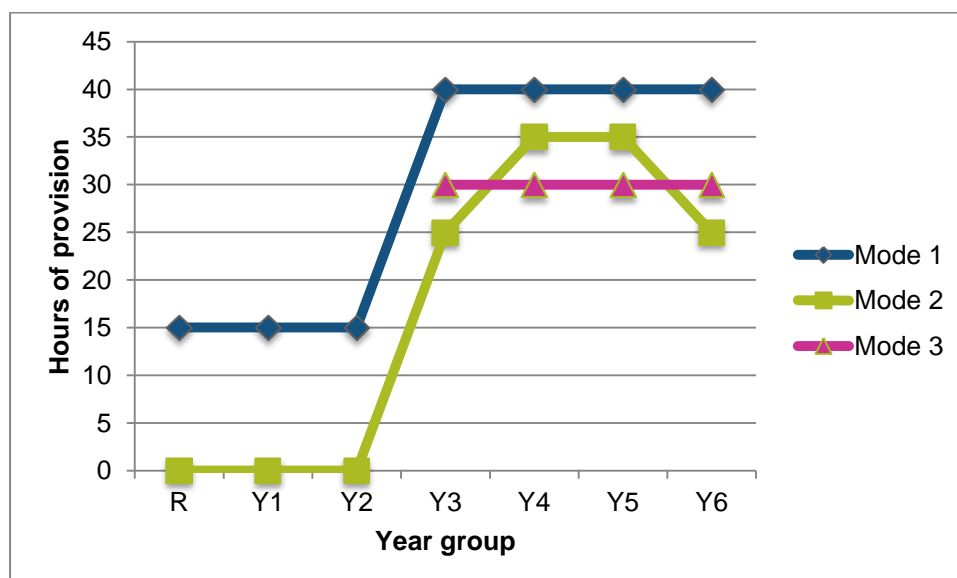
This section presents findings relating to the patterns in provision by year group (Section 3.1), overall amounts of curriculum provision in the schools (autumn 2012 to summer 2014) (Section 3.2) and the amount of extracurricular provision offered by schools (Section 3.3).

3.1 Curriculum provision by year group

Most schools involve all their year groups in In Harmony. However, in the Nottingham schools (four schools), key stage 1 pupils are not routinely involved. Two schools have introduced provision to Year 6 pupils in the past year (School H and School J), one of which has substituted Year 6 for Year 3, who no longer receive tuition (School H).

In the most recent academic year (autumn 2013 to summer 2014), there appear to be three main modes of provision across year groups (see Figure 7).

Figure 7: In Harmony patterns of provision across schools (summer term 2014)



Source: NFER In Harmony provision data collection 2012–4.

Figure 7 illustrates three modes of provision for In Harmony in 11 of the 12 schools (not including the nursery school).

- In seven schools, younger children (typically reception, Year 1 and sometimes Year 2) receive less provision, whereas older children receive more (Mode 1).
- In three schools, younger children receive no provision, middle year groups (typically Years 3 to 5) receive more provision, and those in Year 6 receive a little less than their key stage 2 peers (Mode 2).

- In one school, all year groups involved now receive the same amount of provision (33 hours over the summer term 2014 – Mode 3)¹².

3.2 Amount of curriculum provision

Most In Harmony tuition is provided in curriculum time. Provision tends to follow a pattern of group tuition earlier in the school week, with orchestral music-making taking place during an afternoon session later in the week. In some projects, key stage 1 pupils are learning string instruments, and key stage 2 pupils are learning brass. In others, key stage 2 pupils continue with string instruments. In one area, singing and choral work also make up a substantial part of the provision.

The total amount of In Harmony curriculum provision has varied across year groups and schools, from five (for example, smaller sessions for younger year groups) to 75 hours per pupil per term¹³ (that's a range from just under half an hour to just over six hours a week). The average amount of time received per year group represents between two and four hours a week.

- Three schools have been offering more curriculum provision than others. Taking autumn 2013 data as an example, these schools provided about four hours per week (amounting to over 45 hours of In Harmony provision for the whole term) to most of their year groups (Schools A, B and I).
- A further five schools have consistently provided around two hours a week to their older year groups (i.e. pupils in key stage 2), amounting to between 25 and 35 hours of In Harmony activity in curriculum time¹⁴ (Schools C, D, E, F, G).
- Another three schools have provided around one and a half hours of In Harmony sessions in curriculum time a week, totalling between 20 and 25 hours per pupil per term (Schools H, J, K).

In most schools provision has remained steady across the time period (with the exception of the autumn term 2012, when some projects had started with light touch provision only). According to data collected up to summer 2014, three schools have slightly reduced their curriculum provision since autumn 2013; for example from 3.5 hours a week down to three in one school (School I), and from two hours a week down to 1.5 in another two schools (Schools E and H). In contrast, the nursery school substantially increased its provision in spring and summer 2014, from one hour to six hours per week. (Appendix C1 provides provision charts per term for each school; and Appendix C2 provides termly comparisons for a selection of the schools.)

¹² This is not the same school that reported this pattern in 2012–3.

¹³ Variation by year group explains this range in amount of provision, see Section 3.1, as well as limited start-up in some projects in autumn 2012.

¹⁴ Pupils in Years 3 and 6 received less time in some of these schools.

3.3 Extra-curricular provision

As reported in Section 3.2, most In Harmony provision takes place in school curriculum time, rather than through extracurricular opportunities. In summer 2014, In Harmony opportunities were provided in extracurricular time in eight of the 12 project schools¹⁵. In six of these schools, pupils from across all year groups are involved. In the other two schools, extracurricular In Harmony supervision is offered to pupils in Years 5 and 6 only.

Average hours of extracurricular provision

- The three schools (A, J, K) where extracurricular activity was already provided in the previous academic year have continued to offer the highest number of extracurricular hours in 2014. Pupils taking part in extracurricular In Harmony activity in these schools received over 20 hours of this provision in summer 2014.
- In a further three schools, pupils taking part in extracurricular In Harmony activity received between 11–20 hours, on average, of this provision in summer 2014 (E, F, I).
- In a further two schools, pupils taking part in extracurricular In Harmony received up to 10 hours of this provision in summer 2014 (B, G).

Proportion of pupils opting in to extracurricular provision

As extracurricular participation in In Harmony is an opt-in opportunity for pupils, it is interesting to review the number and proportion of pupils involved. In summer 2014:

- two schools delivered extracurricular provision to more than one-third of their In Harmony pupils (that is over 75 pupils in each of these schools) (School G, School K)
- three schools delivered extracurricular provision to around one-quarter of their In Harmony pupils (that is between 50 and 75 pupils) (School A, School J, School I)
- one school delivered extracurricular provision to around one in seven of their In Harmony pupils (57 pupils in School B), and
- two schools delivered extracurricular provision to a small proportion (one in 15) of their In Harmony pupils (fewer than 15 pupils in Schools E and F).

In addition, children from neighbouring primary schools and those who have moved on to secondary school are taking part in the extracurricular In Harmony activities being provided in the core In Harmony primary schools and/or in community venues.

Appendix C provides further details about the amount of In Harmony provision in each of the 12 schools taking part (according to autumn 2012 to summer 2014 data).

¹⁵ In summer 2013, extracurricular activity was offered in three of the project schools.

4 Attendance at school

The theory of change for In Harmony sets out the outcomes that would be expected to be seen as a result of participation in the programme. These include children participating in In Harmony making greater progress, compared with those from similar backgrounds, in areas such as school attendance. This section explores the attendance rates of pupils in In Harmony schools and pupils in comparison schools.

Key findings

- We found no statistically significant interaction between In Harmony and attendance, i.e. no significant difference between the absence rates of pupils in In Harmony schools and pupils in comparison schools.
- Most of the In Harmony children would have experienced only up to a year of activity by the academic year 2013–4, with limited time to impact on pupils' school attendance rates. However, there was no statistically significant association with the school attendance rates of pupils in more established areas (i.e. Liverpool and Lambeth).

Research question 4: do pupils attend school more regularly than their peers in comparison schools not involved in In Harmony?

Outcome indicator 2: pupils' school attendance improves relative to pupils with similar backgrounds who are not involved in the initiative.

Analysis: multi-level model statistical analyses to ascertain any significant differences between the absence rates of pupils from In Harmony schools and pupils from comparison schools.

This year, we have explored the attendance rates of pupils in In Harmony schools and pupils in comparison schools using data from the National Pupil Database (NPD)¹⁶. The analysis involved multi-level modelling and included the attendance records of 8,339 pupils (2,091 from 11 In Harmony schools¹⁷ and 6,248 from 23 comparison schools). In Harmony pupils were included in this dataset only if the whole year group experienced the provision for the autumn and spring terms of

¹⁶ NPD contains details of pupils' attainment in National Curriculum assessments, school attendance and exclusions along with pupil characteristics.

¹⁷ NPD does not hold data absence for those who are under five at the beginning of the academic year. Therefore reception year children were excluded from this analysis. Hence, the nursery school taking part in In Harmony was not included in this model.

2013–4. Most of the In Harmony children would have experienced up to a year of the provision by the end of the academic year 2013–4. The results showed no significant difference in school attendance rates between pupils in the In Harmony group and the comparison group. Appendix D provides details of the analysis undertaken. It is worth noting that attendance rates are generally high in primary schools, which limits the opportunity for initiatives such as In Harmony to demonstrate an impact on this measure.

Next year, we will analyse school attendance and attainment at both school and pupil level, to explore any differences between In Harmony schools and a comparison group of schools, and to explore any association between amount of In Harmony provision and attainment and attendance for In Harmony pupils.

5 Discussion and conclusion

In Harmony continues to support pupils' music-making, musical enjoyment, social wellbeing and positive aspirations. The positive responses to the pupil survey indicate that In Harmony children are confident musicians and settled young people. However, in the absence of a comparison group this year, we cannot say to what extent these responses are related to participating in the In Harmony initiative and to what extent they reflect trends in children's wider attitudes (i.e. we cannot attribute these findings to In Harmony without further investigation of the comparison group).

Three areas warrant further discussion.

i) Tracking trends in In Harmony children's attitudes

The sustaining power of In Harmony to maintain children's musical engagement and enhance their future aspirations is evident among the In Harmony children this year compared with last year. The 'start-up' effect noted among the newer In Harmony areas last year appears to have waned; overall, children are slightly less keen to continue learning their instrument in a group in the future than they were last year. There appears to be evidence of 'embedding' effects – children in the more established In Harmony areas have a slightly higher desire to continue with their instrument than children in the other In Harmony areas. This may be related to more established transition pathways and out-of-school orchestras in the two more mature In Harmony programmes, whereby pupils can see the possibilities for continuing with their music when they leave primary school. How these trends continue over time, and how they compare with those for children in comparison schools, will be important points to explore in the 2015 survey.

ii) Trends in the nature of provision

Most schools have continued to offer similar amounts of curriculum time to pupils over the course of the programme, representing between two and four hours per week for most of the year groups involved. However three have slightly reduced curriculum time by about half an hour per week and the nursery school has increased provision up to six hours per week.

The large proportions of children engaging in substantial amounts of In Harmony activity outside curriculum time highlights the commitment of pupils, families and schools to the programme. Continuing to track trends in provision will be important throughout 2015, not least to see whether amount and nature of provision is related to children's attainment and attendance at school.

iii) Pupils' musical progress

While not an evaluation of the detail of musical progress, responses to the new questions included in the survey this year highlight that In Harmony children feel very positive about their progress with playing instruments and singing. They also believe their classroom teachers have good musical knowledge. In the case studies in 2015 we will explore perceptions of how musical progress in In Harmony compares with

other whole class ensemble teaching programmes. That said, there is a small proportion of children in In Harmony schools who do not appear to be enjoying music (one-fifth) and do not feel they are making progress (one-tenth). It may be important for In Harmony providers to identify these children and support them better in future.

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Appendix A Outcome indicators and a theory of change

A1 Research questions

The research is investigating a set of eight research questions, listed below. This year's evaluation report covers research questions 2 and 3, and part of research question 4.

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 parents¹⁸/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?

A2 Outcome indicators

The following indicators have been devised to measure the outcomes agreed by the Evaluation Advisory Group and presented in the theory of change in order to underpin the 2012–5 National Evaluation of In Harmony. This year's evaluation has focused on indicators 1 and 3, and part of outcome indicator 2.

1. Pupils' attitudes to learning, self-confidence/self-esteem, wellbeing and aspirations improve.
2. Pupils' attainment and progress (especially in numeracy and literacy), and school attendance improves relative to pupils with similar backgrounds.
3. Pupils' enjoyment of music and their progress in musical skills is enhanced.

¹⁸ Throughout this report we use the term 'parents' to refer to parents and carers.

4. Teachers have positive perceptions of the process and impact of In Harmony and have enhanced expectations of children.
5. Parents perceive that In Harmony is impacting on their children's attitudes to learning, self-confidence/self-esteem and wellbeing.
6. Parents have increased confidence that their children can succeed and parents become more able to help their children achieve their goals.
7. Parents' engagement with the school and their sense of community is enhanced.
8. In Harmony projects become financially sustainable.

A3 A theory of change model for In Harmony

Mission

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

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.

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.

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

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 hubs; and other schools.

Appendix B About the Y2 pupil survey

NFER administered an online survey to key stage 2 pupils in In Harmony schools in May/June 2014. This was the Y2 pupil survey (i.e. year 2 of the evaluation). 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. This appendix sets out information about the Y2 survey respondents (including the Y2-Y1 matched samples) (B1), the breakdown of the Y2 and Y1 respondents by year group (B2), and the reliability of the factor scores used in the factor analyses (B3).

B1 The survey respondents

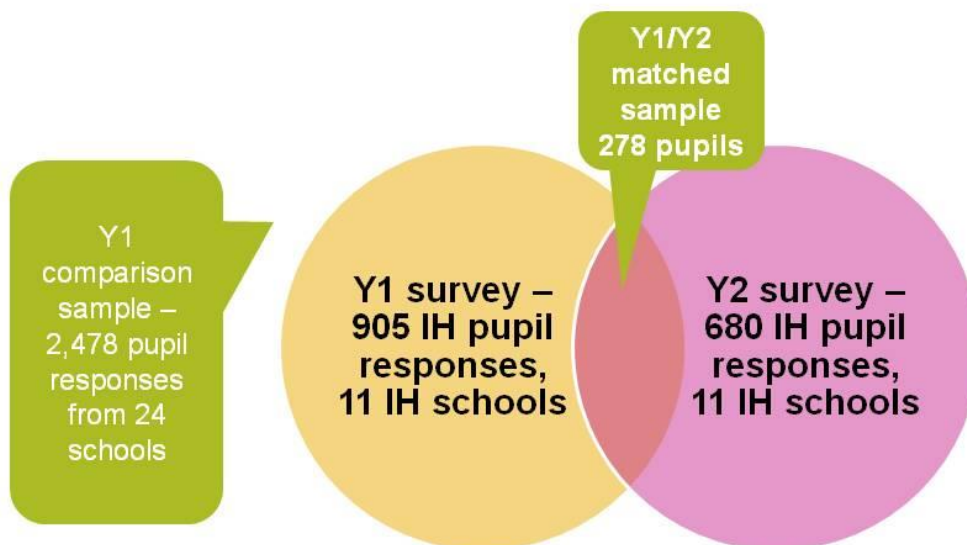
A total of 680 pupils from In Harmony schools completed the Y2 survey in 2014 (known as the Y2 cohort). In 2013, 905 children completed the survey (i.e. the Y1 cohort). A total of 278 pupils completed the survey at both time points (known as the matched respondent sample). Table 2 provides an overview of these figures. Figure 8 provides a visual aid, highlighting how the matched sample is a sub-set of the 680 pupils who completed the survey in Y2.

Table 2: Overall survey respondents

Sample type	Number of schools	Number of pupils
In Harmony respondents Y2 survey (2014)	11	680
In Harmony respondents Y1 survey (2013)	11	905
In Harmony matched respondents (those who completed both the Y1 and Y2 survey)	11	278

Source: NFER In Harmony Year 2 pupil survey 2014, and NFER In Harmony Y1 pupils survey 2013 (In Harmony pupils only).

Figure 8: Pupil survey responses



B2 The year groups responding

Table 3 breaks down the survey respondents by year group. The breakdown shows that there was a slightly greater proportion of older children (Year 6s) responding to the Y2 survey than was the case in the Y1 survey (note the Y1 respondent breakdown shown in Table 3 is for In Harmony children only, not the comparison group who also responded in 2013). That said, a substantial proportion of pupils did not identify their year group in Y1.

Table 3: Survey respondents broken down by year group

School year	Y1 (2013) survey		Y2 (2014) survey	
	N	%	N	%
Year 3	203	22	134	20
Year 4	228	25	185	27
Year 5	246	27	156	23
Year 6	137	15	208	30
No response	91	10	2	0
Total	905	100	685	100

Due to rounding, percentages may not sum to 100.

Source: NFER In Harmony Year 2 pupil survey 2014, and NFER In Harmony Y1 pupils survey 2013 (In Harmony pupils only).

B3 Factor analyses

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. For the Y2 survey, the same items constituted each factor as used in the Y1 survey. The reliability of each factor was explored using Cronbach’s alpha (a measure of reliability) to ensure it was continuing to measure that particular trait well. Table 4 shows the reliability measures (Cronbach’s alpha for each of the factors in the Y1 (2013) analyses, and in the Y2 (2014) analyses).

Table 4: Cronbach’s alpha (reliability) for the factors

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

Source: NFER In Harmony Year 2 pupil survey 2014, and NFER In Harmony Y1 pupils survey 2013 (In Harmony pupils only).

As Table 4 shows, the overall reliability of most of the factors remains reasonably stable. Factors 1 to 4 have similar reliability to last year. However, Factors 5 to 8 have each experienced a drop in reliability. Cronbach’s alpha is influenced by the number of items forming a factor (more items can lead to higher reliability). In the case of Factors 5 to 7 each factor has four items underlying it, while Factor 8 has two items underlying it – this may explain the difference in reliability scores. For example, Factor 2 Application of self to learning has the following six items underlying it: I do well in my school work, I try hard at school, I answer questions in class, I have good ideas, I do my homework, I like learning about things. Factor 6 Musical enjoyment and achievement contains the following four items: I like doing music, I like listening to music, I am doing well in my music, my music teacher is fun.

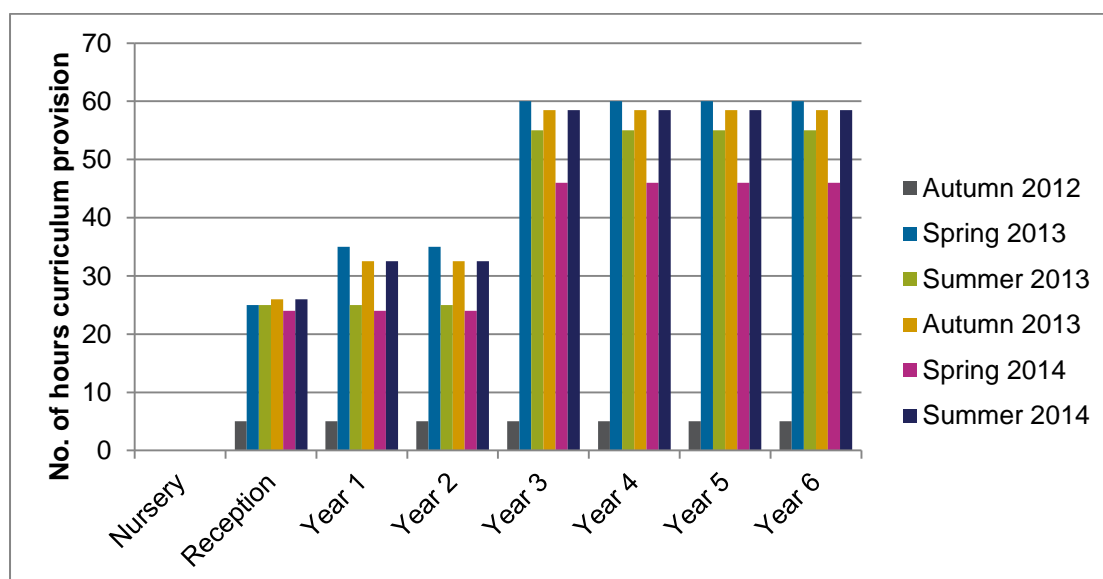
Appendix C In Harmony provision for the terms autumn 2012 to summer 2014

C1 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 to summer 2014. The data is provided for whole year groups. Figures 9 to 20 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.

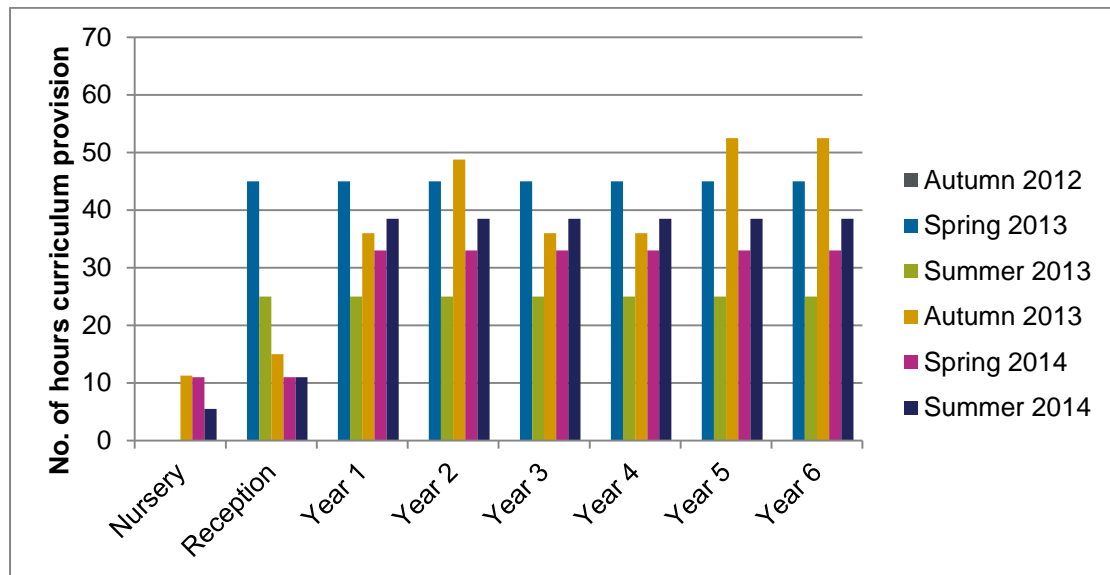
- Autumn 2012 – was a 15-week term for all the In Harmony schools
- Spring 2013 – was an 11-week term for all the In Harmony schools
- Summer 2013 – was a 13-week term for four of the In Harmony schools, and 13.5 weeks for the other eight schools
- Autumn 2013 – was a 15-week term for all the In Harmony 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.

Figure 9: School A



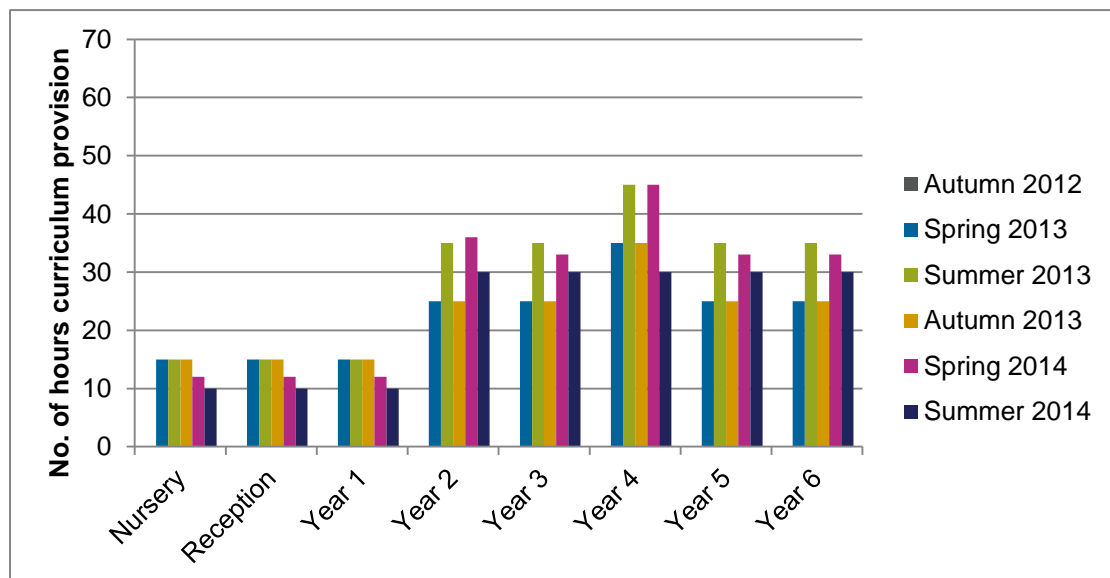
Source: NFER In Harmony provision data collection 2012–4.

Figure 10: School B



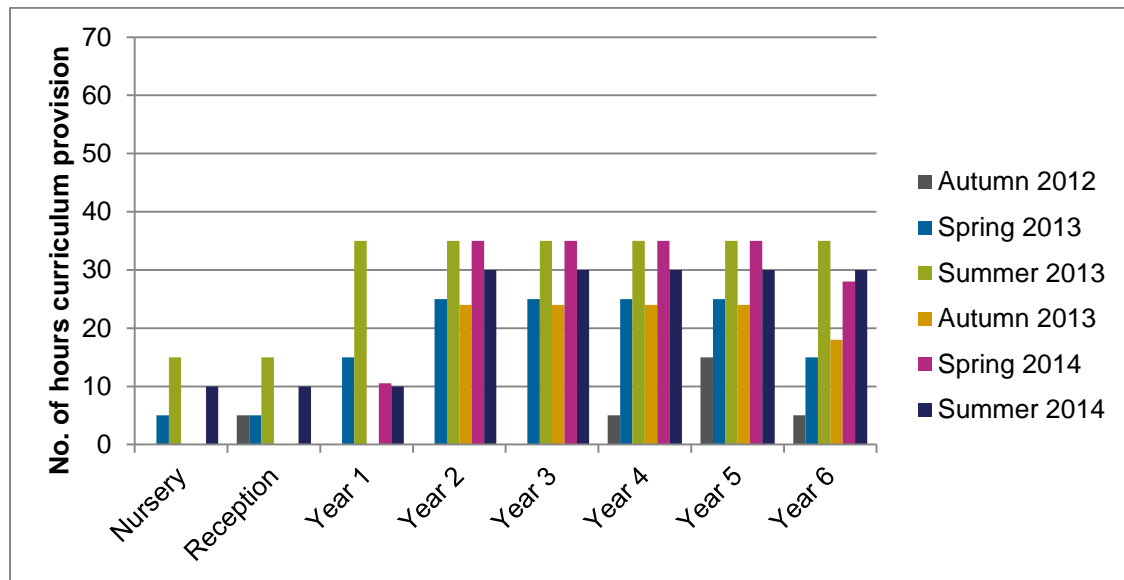
Source: NFER In Harmony provision data collection 2012–4.

Figure 11: School C



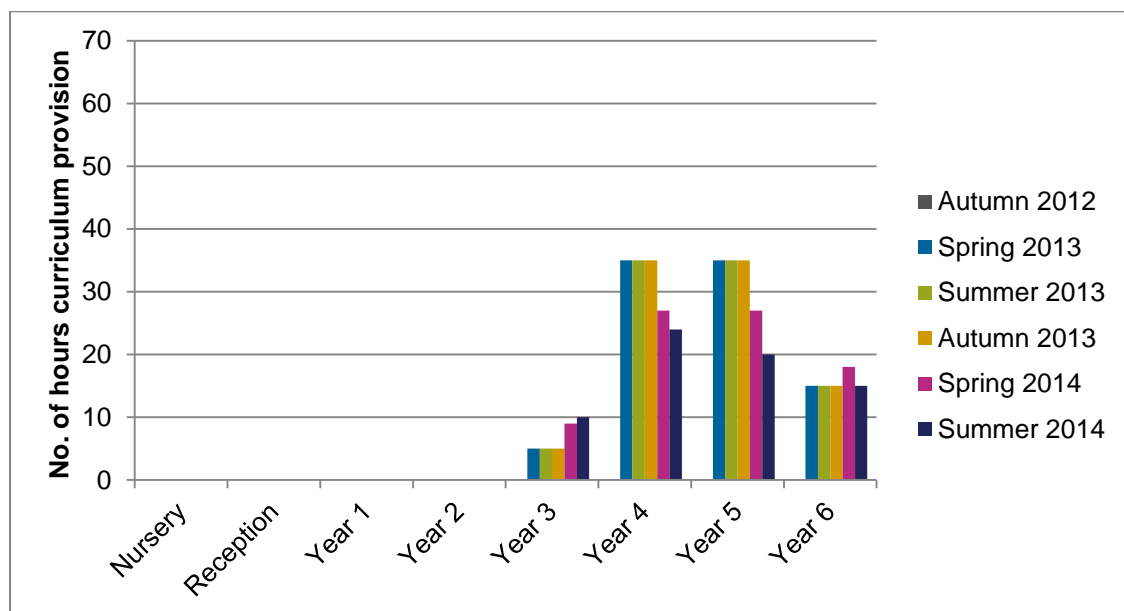
Source: NFER In Harmony provision data collection 2012–4.

Figure 12: School D



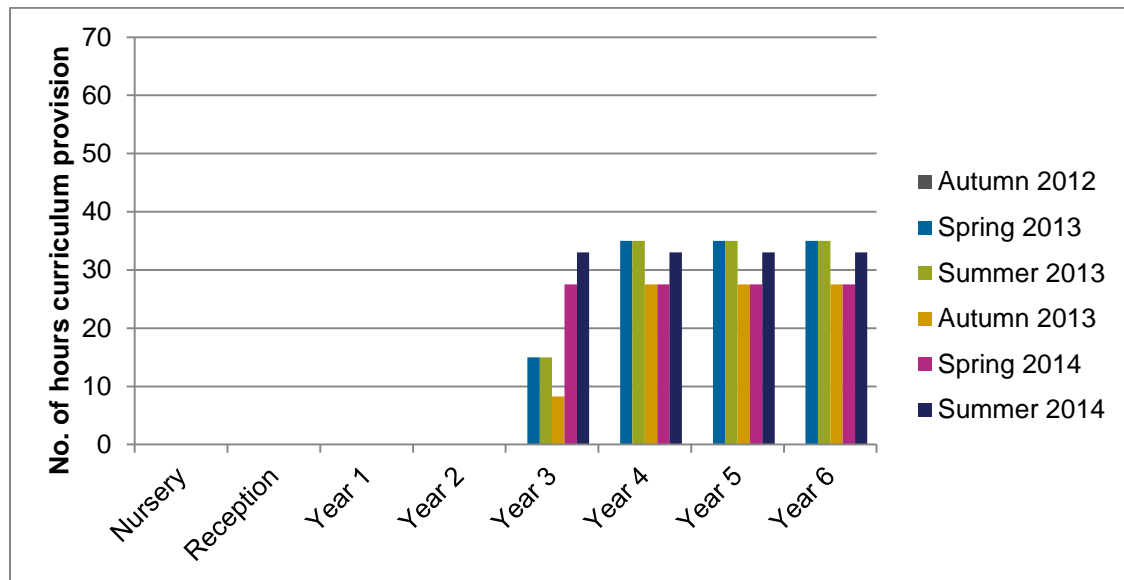
Source: NFER In Harmony provision data collection 2012–4.

Figure 13: School E



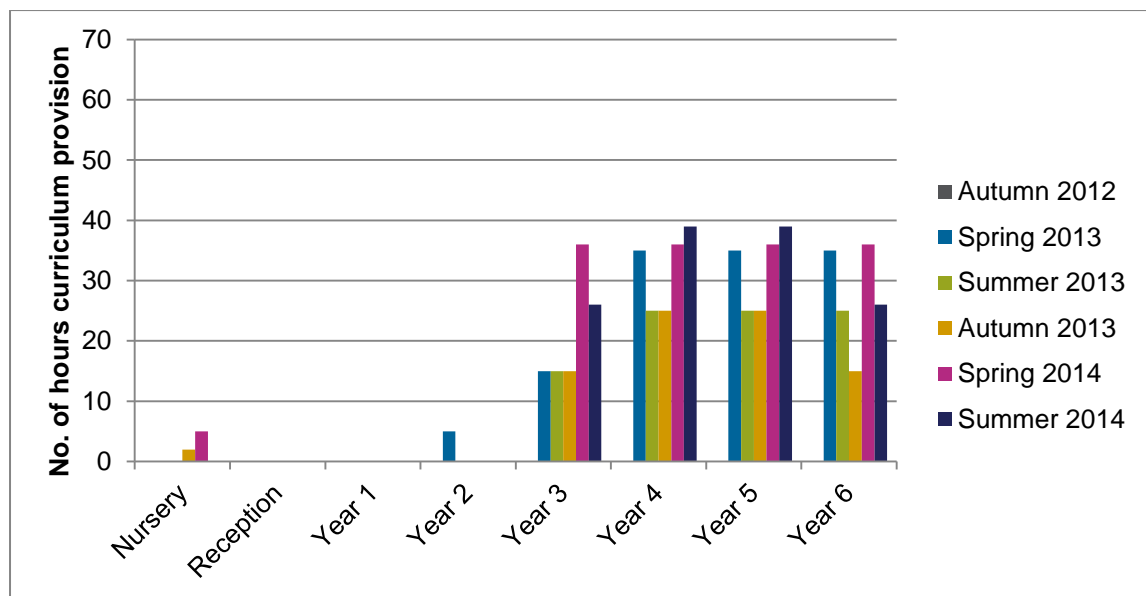
Source: NFER In Harmony provision data collection 2012–4.

Figure 14: School F



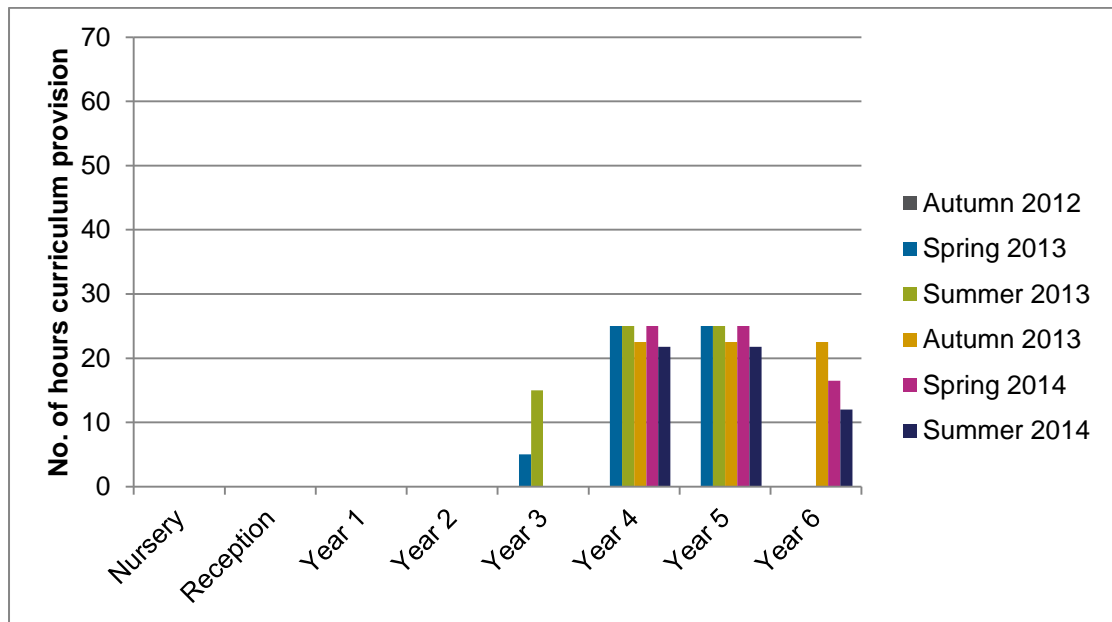
Source: NFER In Harmony provision data collection 2012–4.

Figure 15: School G



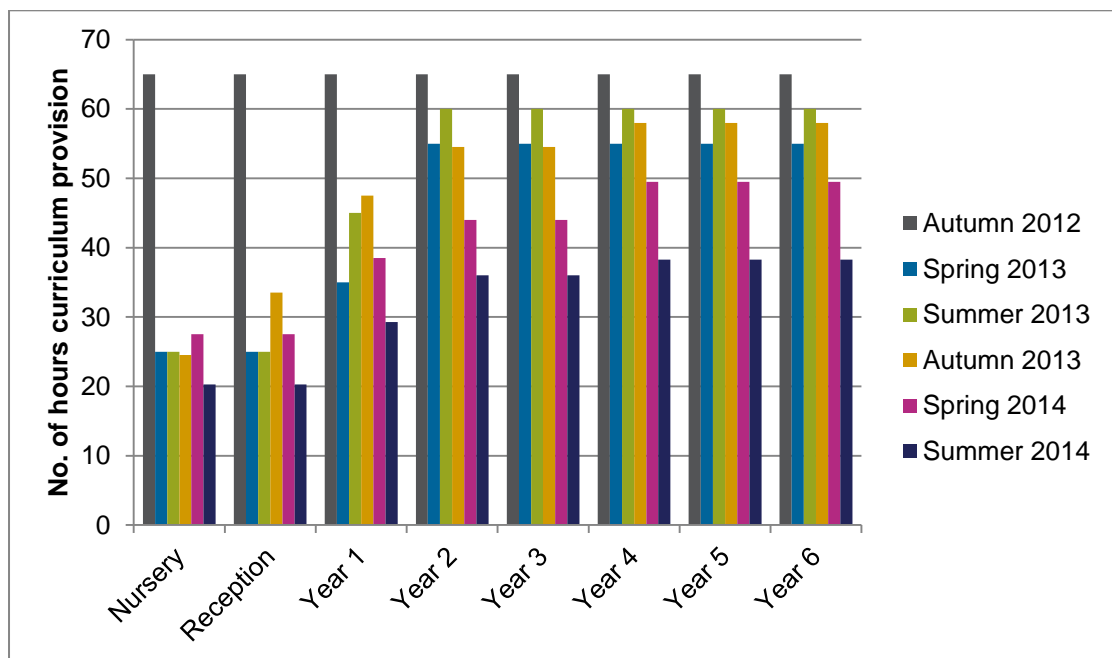
Source: NFER In Harmony provision data collection 2012–4.

Figure 16: School H



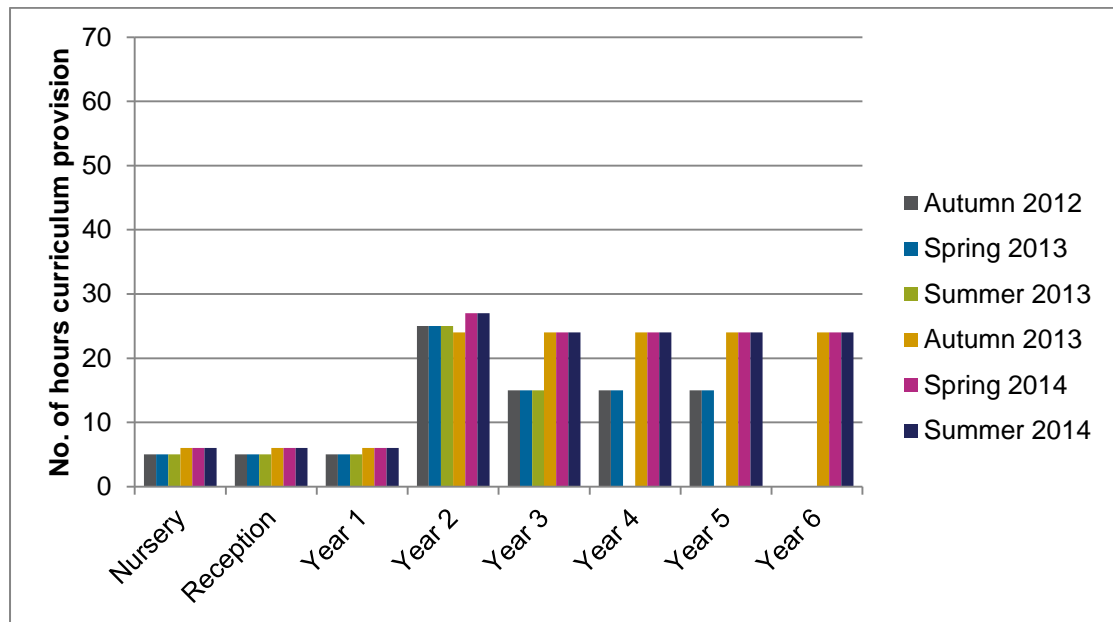
Source: NFER In Harmony provision data collection 2012–4.

Figure 17: School I



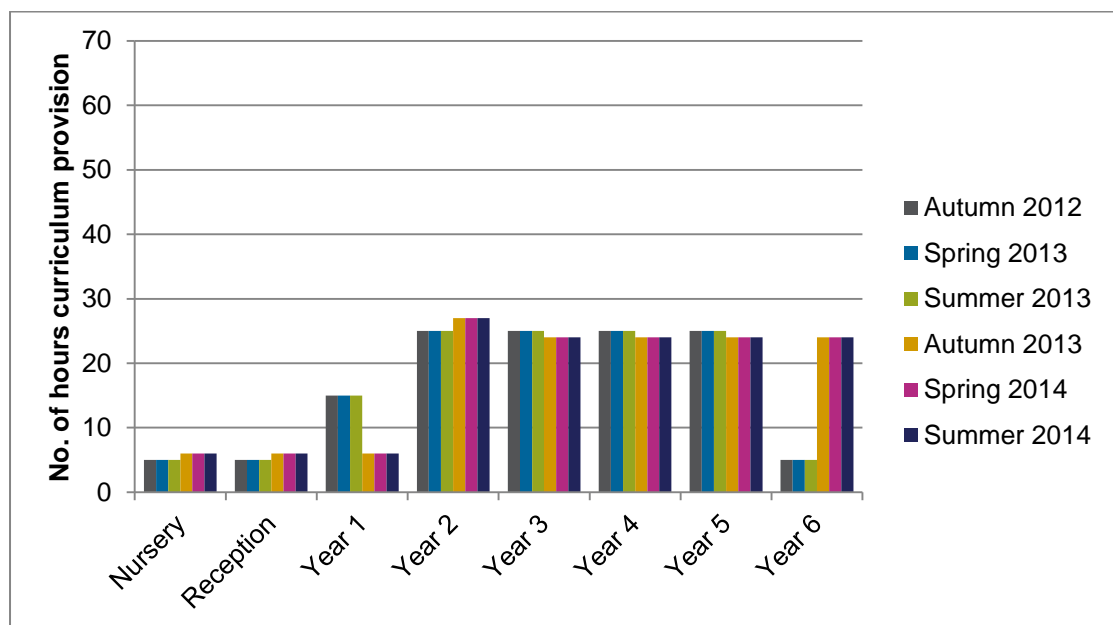
Source: NFER In Harmony provision data collection 2012–4.

Figure 18: School J



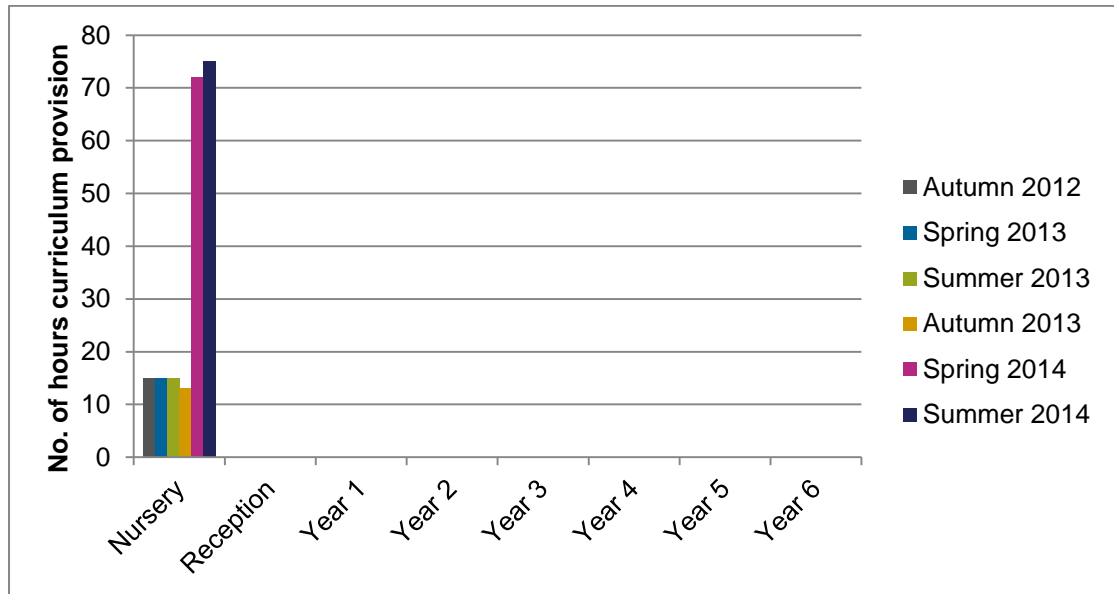
Source: NFER In Harmony provision data collection 2012–4.

Figure 19: School K



Source: NFER In Harmony provision data collection 2012–4.

Figure 20: School L

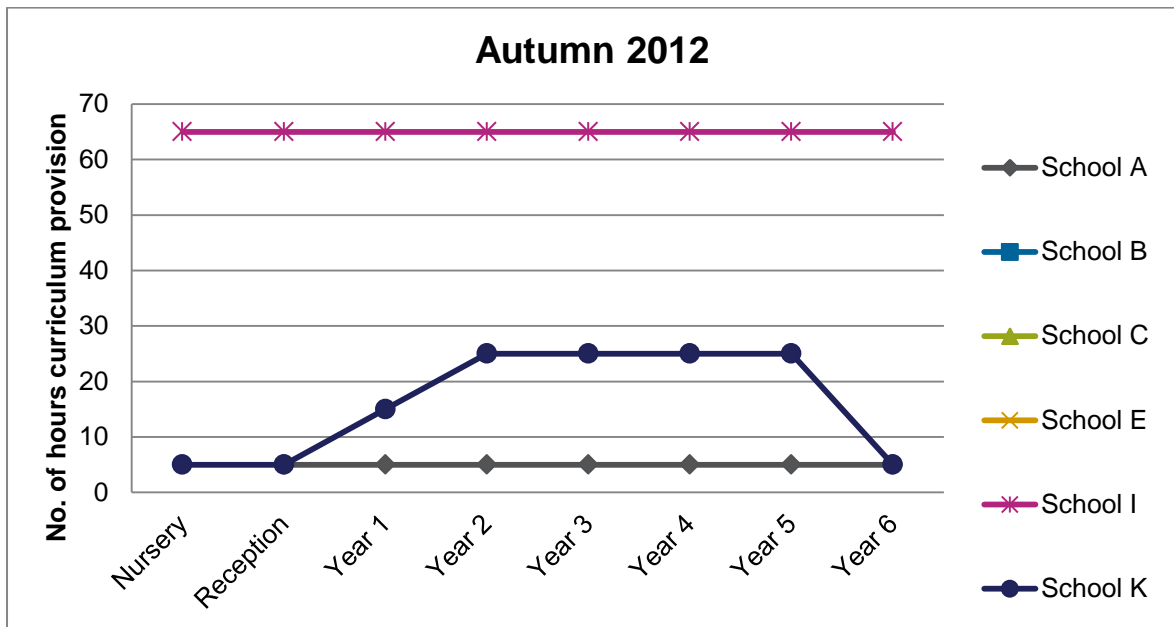


Source: NFER In Harmony provision data collection 2012–4.

C2 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. In particular, note the decrease in curriculum provision from the spring term 2013 to spring 2014; and similarly summer term 2013 to summer 2014. Figures 21 to 26 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.

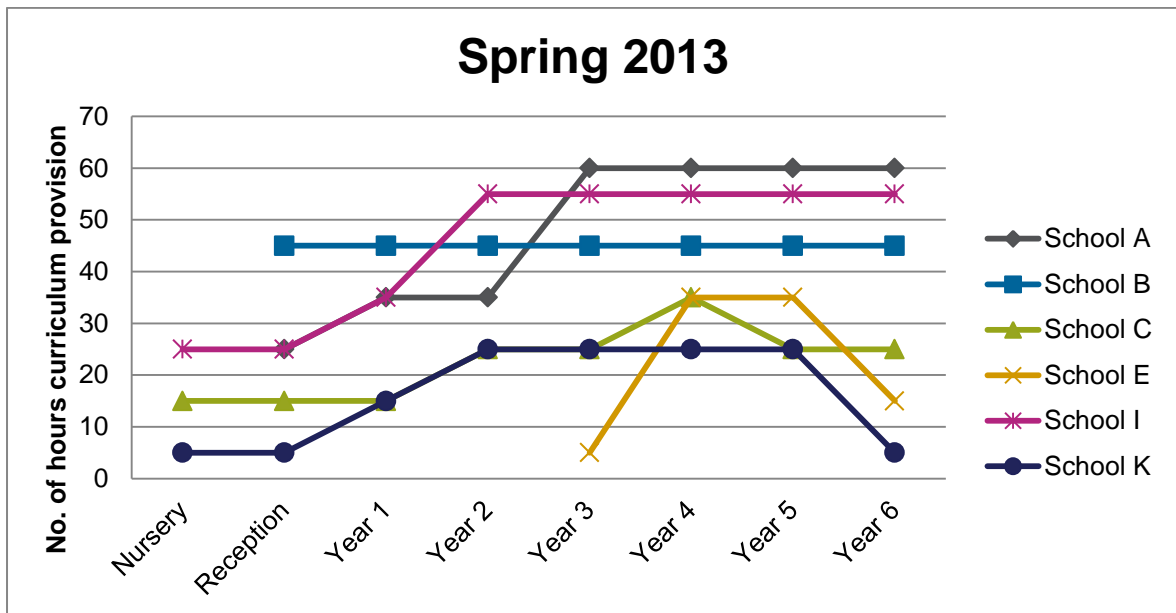
Figure 21: Autumn 2012 curriculum provision data



Source: NFER In Harmony provision data collection 2012–4.

This was a 15-week term for In Harmony schools. Note the newly appointed 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.

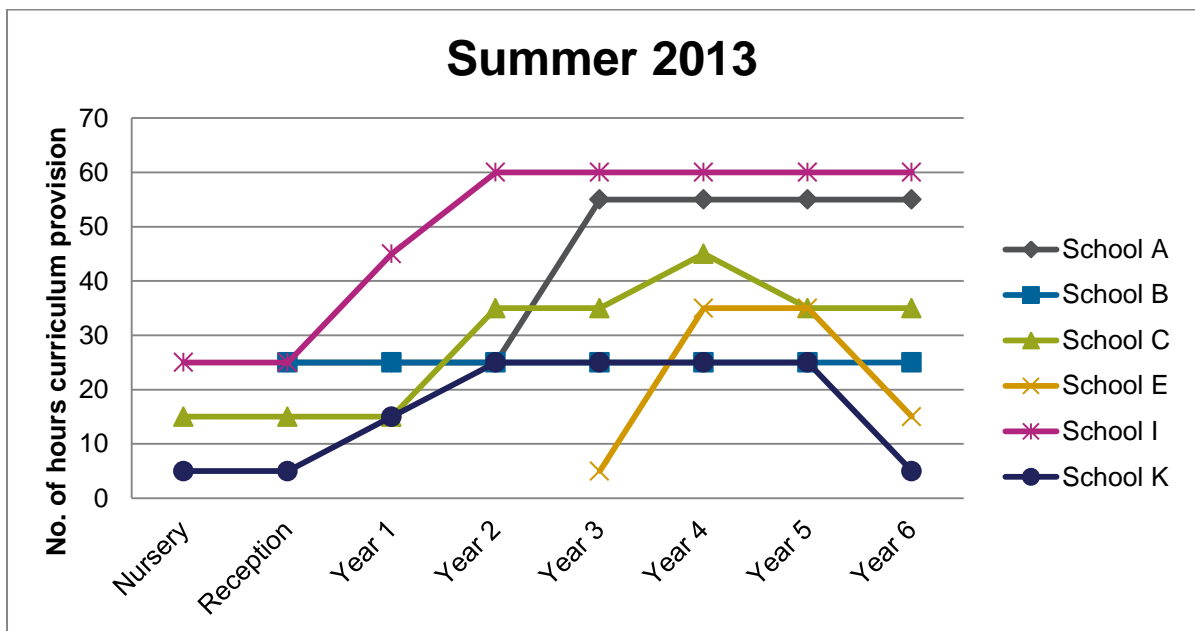
Figure 22: Spring 2013 curriculum provision data



Source: NFER In Harmony provision data collection 2012–4.

This was an 11-week term for In Harmony schools. All In Harmony areas provided a full term's provision.

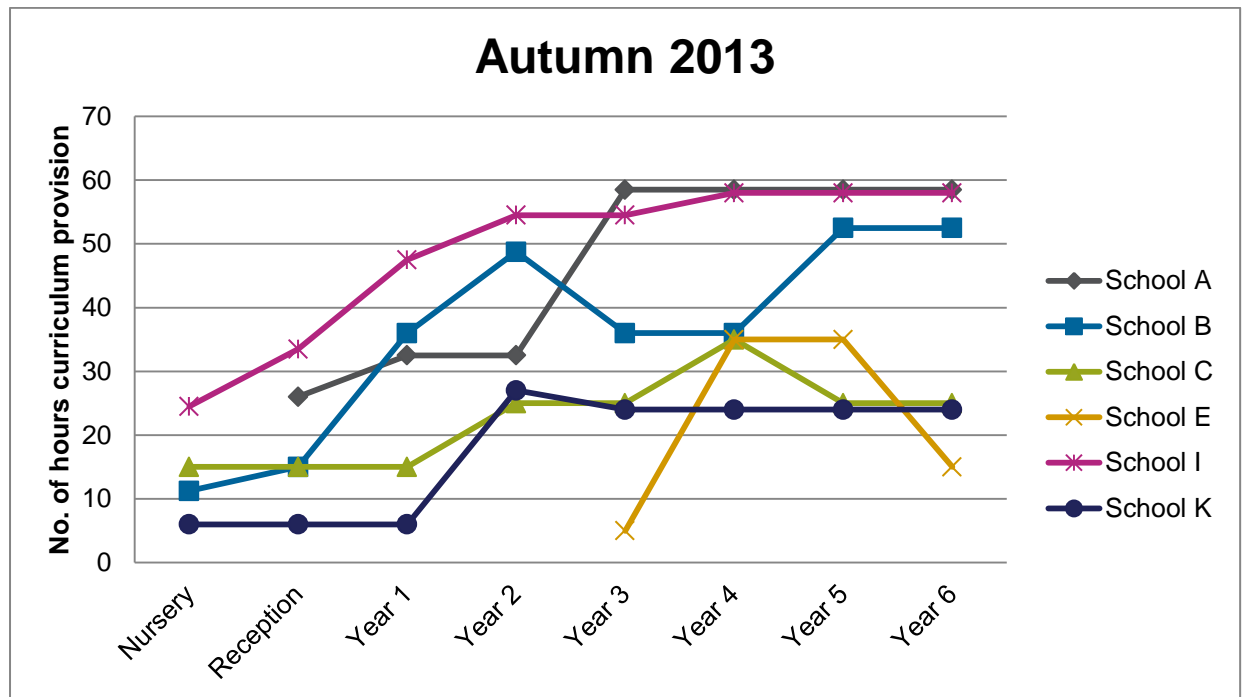
Figure 23: Summer 2013 provision data



Source: NFER In Harmony provision data collection 2012–4.

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

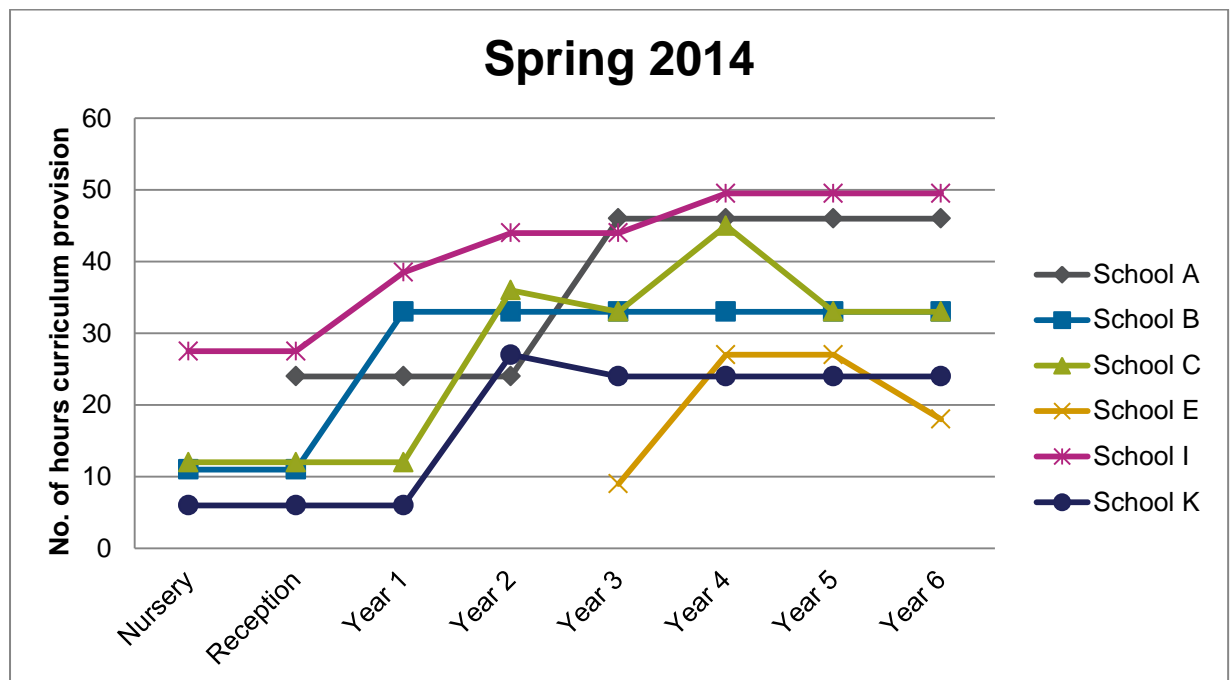
Figure 24: Autumn 2013 provision data



Source: NFER In Harmony provision data collection 2012–4.

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

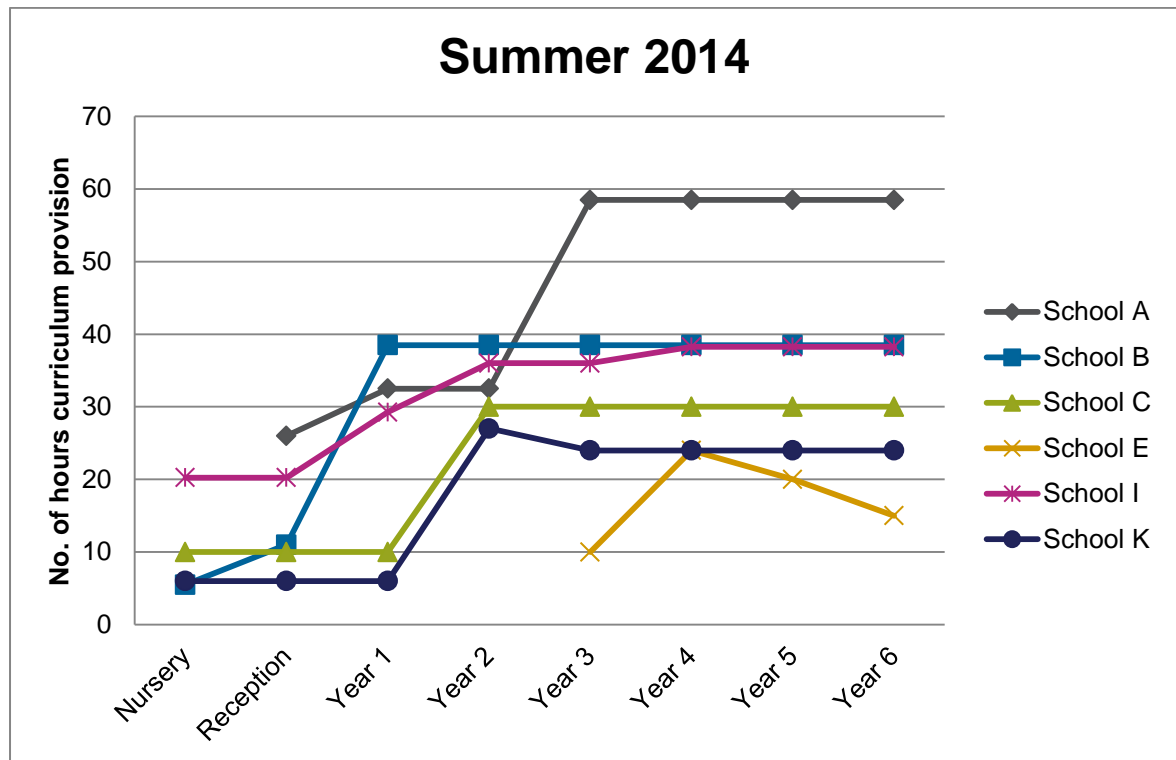
Figure 25: Spring 2014 provision data



Source: NFER In Harmony provision data collection 2012–4.

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

Figure 26: Summer 2014 provision data



Source: NFER In Harmony provision data collection 2012–4.

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

Appendix D School attendance data analyses

D1 School absence

School absence is measured as authorised, unauthorised and overall absence. It is measured per session – i.e. a session is either a morning or an afternoon in school. School absence rates and individual pupil level absence records are provided on the National Pupil Database (NPD) for children over the age of five. We explored the percentage of authorised/unauthorised/overall sessions missed during the autumn and spring terms of 2012–3 and of 2013–4. The summer terms were not included in our analysis because the data was not yet available for summer term 2013–4 and outcomes needed to be comparable across terms for all years considered.

D2 Analysis of school absence using NPD

We used multi-level modelling to control for systematic differences between In Harmony schools and comparison schools to identify any differences in school absence among those pupils who attend a school participating in In Harmony and those in schools that do not take part in In Harmony.

Multi-level modelling is a development of the statistical technique regression analysis. It provides a technique for finding relationships between variables, given the values of one or more related measures. Multi-level modelling takes account of data which is grouped into similar clusters at different levels. In the present study, individual pupils are grouped into schools. Multi-level modelling allows the analysis to take account of this hierarchical structure of data and produce more reliable results.

The dataset was prepared in SPSS. The dataset contained pupils' school absence information for the autumn and spring academic terms of both 2012–3, and 2013–4, and other background data such as gender, ethnicity and FSM (free school meals) eligibility collected in autumn 2013. In Harmony pupils were included in this dataset only if the whole year group experienced the provision for the autumn and spring terms of 2013–4. Most of the In Harmony children would have experienced only up to a year of the provision by academic year 2013–4, although those in Liverpool and Lambeth would have experienced more provision.

Once this dataset was finalised, three multi-level models were run in R, one for each of the outcome measures of overall absence, authorised absence and unauthorised absence. The following variables were included in the modelling:

- Pupil level: IDACI (Income Deprivation Affecting Children Index), gender, ethnicity, SEN (special educational needs), FSM eligibility in last six years, EAL (English as an additional language).

- School level: In Harmony/comparison school, region, key stage 2 average point score 2013.

The models showed no significant difference between the absence rates of pupils from In Harmony schools and pupils from comparison schools. After the initial models were run, a school level flag was also included to indicate whether the school was in one of the more established areas (i.e. Liverpool or Lambeth). This again, did not indicate any significant association with the school absence rates of the pupils.

D3 Sample representation

The sample for the multi-level modelling comprised the 11 In Harmony schools with pupils over reception age. NPD (National Pupil Database) does not hold absence data for those who are under five at the beginning of the academic year; therefore, reception year children – and hence the nursery school involved in In Harmony – were excluded from this dataset.

The NFER then used the sample of comparison schools drawn for the study (i.e. the sample drawn in Y1). These were drawn from a sample of 1,357 schools from statistical neighbours of the local authorities which run In Harmony programmes. A stratified, random sample was drawn such that comparison schools' characteristics would match those 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.

This year, the comparison group involved 23 schools (the 24th comparison school from last year's sample had closed in autumn 2013 and re-opened under a new DfE number; we did not access its NPD data). The sample for analysis included 8,339 pupils (2,091 from 11 In Harmony schools and 6,248 from 23 comparison schools). Table 5 presents the school characteristics for all the schools in the attendance data analyses. As seen in the table, proportions of In Harmony responding schools in each category of SEN band, FSM band and White British band match closely 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. Note overall that pupils are from a group of schools that have higher percentages of SEN and FSM than the national average and have lower percentages of White British pupils than the national average. This reflects the nature of the In Harmony programme – taking place in disadvantaged areas of the country.

Table 5: Sample representation

		In Harmony schools		Comparison schools	
		n	%	n	%
Percentage of pupils with any level of SEN 2010/11	16-24% of pupils	3	27.3	5	21.7
	25%+ of pupils	8	72.7	18	78.3
	Total	11	100	23	100
Percentage pupils eligible for FSM 2010/11 (5 pt scale)	2nd highest 20%	1	9.1	2	8.7
	Highest 20%	10	90.9	21	91.3
	Total	11	100	23	100
Percentage of pupils who are White British	Under 20% of pupils	3	27.3	8	34.8
	20-39% of pupils	1	9.1	1	4.3
	40-59% of pupils	2	18.2	2	8.7
	60-79% of pupils	5	45.5	12	52.2
	Total	11	100	23	100

Source: NFER In Harmony absence data analyses – In Harmony and comparison group schools.

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