Talk Boost KS2
Evaluation Report 2016

Thanks

With thanks to the children, parents and staff in the schools who participated in the project and to the Evaluation Assistants conducted the assessments.

Thanks are also due to Dr Catherine Adams and Dr Jenny Freed of Manchester University who supported the evaluation design and analysis of the findings.

I CAN is the children's communication charity. We are experts in helping children develop the speech, language and communication skills they need to thrive in a 21st century world.

Our vision is a world where all children have the communication skills they need to fulfil their potential.

Our mission is that no child should be left out or left behind because of a difficulty speaking or understanding.

I CAN is the leading children's communication charity in the UK. *Language is the fundamental life skill, essential for all learning, for making friends and for life.* But over a million children have severe communication difficulties, and in some areas over half of children start school with delayed language. Often unidentified, and therefore with no support, *children with communication difficulties will find life hard*. I CAN runs two special schools for those children with the most severe communication difficulties; and our training, information and programmes reach many more children and families across the UK. With our support, children with communication difficulties of all ages learn, achieve, make friends, enjoy life and go on to make a successful, independent transition into adulthood.

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Executive summary

Talk Boost KS2 is an evidenced, manualised intervention for children aged between 7 and 10 years in mainstream schools who have delayed language and communication skills.

Talk Boost KS2 was trialled in 34 schools in two phases between December 2014 and December 2015. Using a mixed method evaluation design, we collected data on 251 children who took part in the trial, as well as information from parents and teaching staff.

Working with Dr Cathy Adams and Dr Jenny Freed from Manchester University, we analysed complete data sets in Phase 1 for 87 children who took part in *Talk Boost KS2* and 77 children who did not, and compared the findings.

Evidence from the Speech, Language and Communication Progression Tool – a non-standardised assessment developed by the Communication Trust[1] – showed that children made significant progress in language and communication compared to a group who did not do *Talk Boost KS2*.

After *Talk Boost KS2*:

● 65% of children were working to expected levels in Understanding and using vocabulary (compared to only 32% in the comparison group).

● 61% of children were working to expected levels in Sentences (compared to only 31% of the comparison group).

● 67% of children were working to expected levels in Understanding spoken language (compared to only 31% of the comparison group).

We asked teaching staff to complete a Learning behaviour checklist – a rating scale of behaviours which support communication and learning in the classroom.

Statistical analysis found that staff rated the children as being significantly better than children in the comparison group after *Talk Boost KS2* on:

● showing appropriate listening skills

● saying when they don't understand

● joining in with group activities

● talking to peers in small groups

● using narrative skills to tell a story.

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1 See www.thecommunicationtrust.org.uk/resources/resources/resources-for-practitioners/progression-tools-primary/

Executive summary

We asked parents to complete a **Parent questionnaire** – a five-point rating scale looking at their child's language and their own confidence in supporting it. After *Talk Boost KS2*:

● 85% of parents felt that *Talk Boost KS2* had made a difference to their child's language.

● 69% felt their children were better at asking about unfamiliar words and talking to family members.

We also used two standardised assessments in our evaluation. Findings from these did not show the progress the children had made immediately after *Talk Boost KS2*. However, there were some indications from an analysis of assessments repeated a term later on the group of children who had done the intervention, that focusing on children's language through *Talk Boost KS2* can significantly improve children's reading comprehension – an average of 11 months in 7 months.

In addition, 12 weeks after taking part in *Talk Boost KS2* our analysis indicates that children's sentence comprehension, naming and narrative had improved. Both of these findings need to be confirmed in further research.

2 Adams, C., Coke, R., Crutchley, A., Hesketh, A. & Reeves, D. (2001) Assessment of Comprehension and Expression 6–11. London: NFER-Nelson. (Sentence Comprehension, Naming and Narrative subtests only); Snowling, M.J., Stothard, S.E., Clarke, P., Bowyer-Crane, C., Harrington, A., Truelove, E. & Nation, K. (2009) York Assessment of Reading for Comprehension (YARC). London: GL Assessment.
3 Further research is required due to a lack of control group at follow-up in this cross-over design study.

About *Talk Boost KS2*
Background

There is a strong association between speech, language and communication difficulties and social deprivation. We know that in primary schools, approximately 50% of children, particularly in areas of social deprivation, have language skills below the expected level for their age.[4] If children with language delay do not receive timely support, their difficulties will continue and can adversely affect their academic achievement and social relationships.[5]

Without the right support language difficulties can last into adolescence, affecting relationships and learning.[6] For some children this support will take the form of specialist intervention, including speech and language therapy. However, for many children lack of early experience of good communication models can leave them with delayed language skills which, although not severe enough to be classified as a Special Educational Need (SEN) requiring specialist intervention, does mean that they are in danger of falling behind their peer group. This can become a bigger issue in Key Stage

2 when the language demands of the curriculum increase. The English National Curriculum places emphasis on oral language skills across the curriculum areas, and oral language skills are a key feature of many 'Assessment for Learning' practices in school. Almost everything at school involves spoken language; it is the way most learning happens. It is crucial for development in primary school children.[7]

Ofsted evaluates how well children develop and apply their skills in communication and how well communication is taught. However, identifying speech, language and communication needs (SLCN) can be difficult for school staff who often lack confidence in this area;[8] without knowledge of typical language development it is hard to identify when children fall behind and to know what to do to support them. A 2013 Ofsted report found that schools effectively using their Pupil Premium made sure that support staff, particularly teaching assistants, were highly trained and understood their role in helping children to achieve.[9]

4 Law, J., McBean, K. & Rush, R. (2011) 'Communication skills in a population of primary school-aged children raised in an area of pronounced social disadvantage', *International Journal of Language and Communication Disorders*, Vol. 46:6, 657–64.

5 Sage, R. (2005) 'Communicating with students who have learning and behaviour difficulties: A continuing professional development programme', *Emotional and Behavioural Difficulties*, Vol. 10, No. 4. Summarised in Hartshorne, M. (2006) *The cost to the nation of children's poor communication.* I CAN Talk Series, Issue 2. London: I CAN.

6 Spencer, S., Clegg, J. & Stackhouse, J. (2012) 'Language and disadvantage: a comparison of the language abilities of adolescents from two different socioeconomic areas', *International Journal of Language and Communication Disorders*, Vol. 47:3, 274–84.

7 Goswami, U. & Bryant, P. (2007) *Children's Cognitive Development and Learning* (Primary Review Research Survey 2/1a). Cambridge: University of Cambridge Faculty of Education.

8 Lee, W. (2013) *A generation adrift*. London: The Communication Trust. Available at www.thecommunicationtrust.org.uk/media/31961/tct_genadrift.pdf

9 Ofsted (2013) *The Pupil Premium: How schools are spending the funding successfully to maximise achievement*. London: Ofsted.

With this in mind I CAN, the children's communication charity, identified a need for a targeted intervention programme aimed at supporting children aged 7–10 years with delayed language development.

A major national programme of research into children's speech, language and communication needs, the Better Communication Research Programme (2012), found that evidenced interventions should be offered at universal, targeted and specialist levels to meet the needs of children and young people across early years, primary and secondary age groups.[10] An evaluation framework was designed to ensure rigorous evaluation of the targeted intervention.

This report contains a description of the development and contents of this intervention – *Talk Boost KS2* – and describes how it was evaluated and tested in pilot schools between 2014 and 2015.

10 Lindsay, G., Dockrell, J., Law, J. & Roulstone, S. (2012) *The Better Communication Research Programme: Improving provision for children and young people with speech, language and communication needs.* London: DfE (Research Report DFE-RR247-BCRP1).

Design and rationale

The increasing demands of the curriculum at Key Stage 2 require children not only to be able to use language in a more diverse and abstract way, but also to be able to understand and use more complex grammar and vocabulary. At the same time their friendship groups and interactions with their peers are becoming more verbal and have an increased load in terms of understanding and following the unwritten and fast-paced rules of social engagement.[11]

The use of increasingly abstract language in the curriculum, combined with fewer visual prompts and increased demands on social communication skills mean that some children with delayed language skills struggle to achieve their potential. For other children the consequences of a poor early language environment are late to emerge – so children with delayed language who may have coped relatively well in Key Stage 1 find that by Key Stage 2 the gap between themselves and their peers increases.[12]

Talk Boost KS2 was developed in response to this need. It is a targeted intervention delivered by trained teaching assistants and teachers to children identified as having delayed language skills. *Talk Boost KS2* consists of a manual containing directions and resources for activities delivered to groups of four children, three times a week over an eight-week period. There are also whole class activities and homework set by the class teacher in order to embed and reinforce the learning for the target group of children, and to support all children in the class group with their language and communication skills. The homework contains 'top tips' for parents to help them develop their child's language and communication skills at home.

The elements of *Talk Boost KS2* were designed to address the key skills that children need at this age.

Active listening (Listening carefully)
Listening and understanding both adults and other children are critical for learning and developing relationships.[13] Recognising when you haven't understood and having strategies to overcome this are also crucial.

Vocabulary (Learning new words)
Children's acquisition and command of vocabulary are key to their learning and progress across the whole curriculum.[14] The words used in school become increasingly complex and specialised as children progress through the curriculum. There is an increased

11 Howe, C. & Mercer, N. (2007) Children's Social Development, Peer Interaction and Classroom Learning (Primary Review Research Survey 2/1b). Cambridge: University of Cambridge Faculty of Education.
12 Reilly, J. & Murray, S. (2005) Thinking and speaking in primary schools. Edinburgh: Barrington Stoke.
13 Coe, R., Aloisi, C., Higgins, S. & Elliot Major, L. (2014) What makes great teaching. London: Sutton Trust.
14 Stahl, S. & Fairbanks, M.M. (1986) 'The effects of vocabulary instruction: a model based meta-analysis', Review of Educational Research, 56:72-110.

use of higher level words used across the curriculum – such as 'coincidence', 'absurd', 'industrious' – and an emphasis on topic specific words – such as 'photosynthesis', 'peninsula'. The higher level words with relevance across a number of curriculum areas (referred to as Tier 2 words) are more commonly used and yet less likely to be taught than the less frequently used but subject-specific Tier 3 words.[15]

Narrative skills[16] (Telling stories and saying what happens)

Before children can write with confidence, using extended sentences and complex vocabulary, they must first be able to speak in sentences, and developing this skill is a key element in successful literacy skill development.

Working memory and problem solving (Remembering and thinking)

The Programme for International Student Assessment (PISA)[17] identifies Collaborative Problem Solving (CPS) as a critical and necessary skill across educational settings and in the workforce. Working memory is an important process for reasoning, decision making and behaviour.

Talking in groups (Working with others and Making friends and having conversations)

Children tell us that making friends is really important to them in school; and being able to take part in group discussions[18] is a crucial part of forming and maintaining relationships. In addition, in many classrooms children are expected to be able to take part in class discussions and small group work with peers as part of the learning process.

Talk Boost KS2 includes activities to address each of these key skill areas for children aged 7–10 years.

15 Beck, I.L., McKeown, M.G. & Kucan, L. (2002). Bringing words to life. New York, NY: The Guilford Press.
16 Wellman, R.L., Lewis, B.A., Freebairn, L.A., Avrich, A.A., Hansen, A.J. & Stein, C.M. (2011) 'Narrative ability of children with speech sound disorders and the prediction of later literacy skills', Language, Speech and Hearing Services in Schools, 42:561–79.
17 See www.oecd.org/pisa/
18 Centre for Research in Education and Educational Technology (2014) Thinking together in the primary classroom. London: Open University Press.

Pupil voice

As an organisation committed to the participation of users, I CAN gathered feedback from children who had taken part in *Talk Boost KS2*. The intention was to find out what aspects they had enjoyed and which they thought had made a difference to their learning. Their thoughts and ideas were used when reviewing the materials and staff training, for the final version of the intervention.

A child focus group was facilitated by an I CAN advisor in two schools, in partnership with the teaching assistant who had delivered the *Talk Boost KS2* intervention. The group ran for about 20 minutes and included a number of activities, as these have been identified as the best way of consulting with children with SLCN.[19] Each activity had a visual component and children could respond in a variety of ways. It was important that language was not a barrier for children to express their thoughts and feelings, so some of the activities involved drawing or gestures. Rules were established at the beginning, such as 'Only one person could speak at a time' and 'Everyone should have a turn with each activity'. This gave each child a chance to process the information and contribute meaningfully and equally. The children's responses were captured on a flipchart through key words and pictures. Each response was dealt with sensitively and in a way that children felt valued and heard.

Listening to children shaped some of the advice we give to schools, for example about considering the environment in which the group is run and the time of day that it is delivered. Consulting with the children has also ensured that the activities appeal to children in this age group.

19 Roulstone, S., Harding, S. & Morgan, L. (2016) Exploring the involvement of children and young people with speech, language and communication needs and their families in decision making – a research project. London: The Communication Trust.

Structure of *Talk Boost KS2*

There are four main components of *Talk Boost KS2* (see Figure 1):

● the Intervention Manual

● the Teacher Manual

● the Communication Detective Notebook

● the initial staff training for teaching assistants and class teachers.

Staff training

Communication Detective Notebook
- Reinforces learning
- Integrated activities
- Reference after intervention

Teacher Manual
- Whole class activities
- Homework activities
- Tracker
- Child self-rating scale

Intervention Manual
- Four children and TA
- Three times a week; eight weeks
- Resources and Organiser box
- Tracker before and after
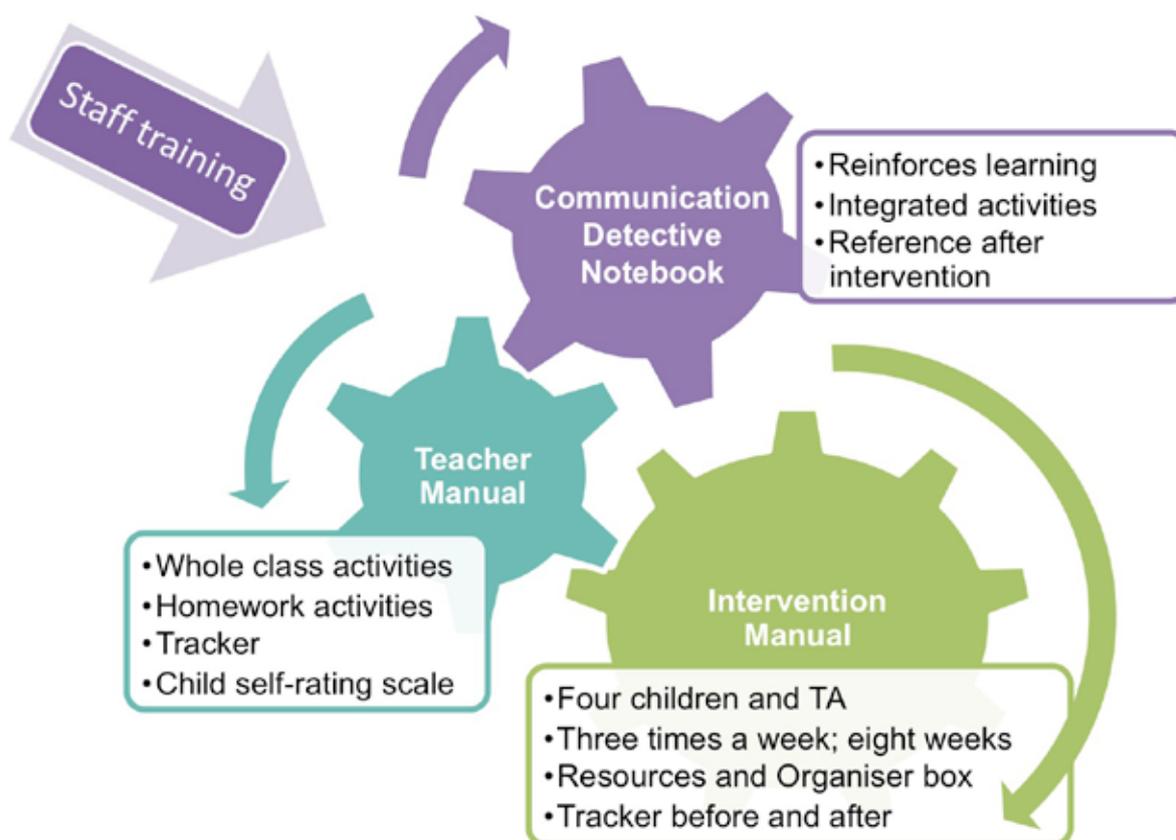
Figure 1: Components of *Talk Boost KS2*

Intervention Manual

The Intervention Manual contains clear details of the activities and all the resources needed to deliver the small group part of the intervention which runs three times a week for eight weeks. The activities are designed for groups of four children in Years 3–5 (ages 7–10), and are delivered by a trained teaching assistant (TA) with the support of the class teacher. Resources for the *Talk Boost KS2* group are also provided in an organiser box, reducing the time teaching assistants need to spend preparing for the group sessions.

The activities are evidence-informed; there is either direct research evidence to support a given strategy or it is informed by the specialist experience of the speech and language therapist and teacher who authored the intervention.

Learning objectives are given in each session to be shared with the children so that they know what is expected and when they have achieved it. This is combined with explicit feedback, known to be one of the most effective methods of raising attainment.[20]

Meta-linguistic[21] awareness is emphasised throughout *Talk Boost KS2*. Through talking about what they are doing, the teaching assistant sharing the learning objectives, and through the children being taught the 'language of language', the children develop their understanding of **what** they are doing and **why** it helps their learning. This supports their independence skills.

'Good listening means we sit fairly still, we look at the speaker and we think about the same thing. If you are doing all of these, that means you are showing good listening skills.' Example of guidance from the *Talk Boost KS2* Intervention Manual

20 Higgins, S., Kokotsaki, D. & Coe, R. (2011) *Toolkit of strategies to improve learning: Summary for schools spending the Pupil Premium*. Durham: University of Durham/Centre for Evaluation & Monitoring, commissioned by the Sutton Trust.
21 Jones, P. & Hammond, J. (2016) 'Talking to learn: Dialogic teaching in conversation with educational linguistics', *Research Papers in Education*, Vol. 31, Issue 1.
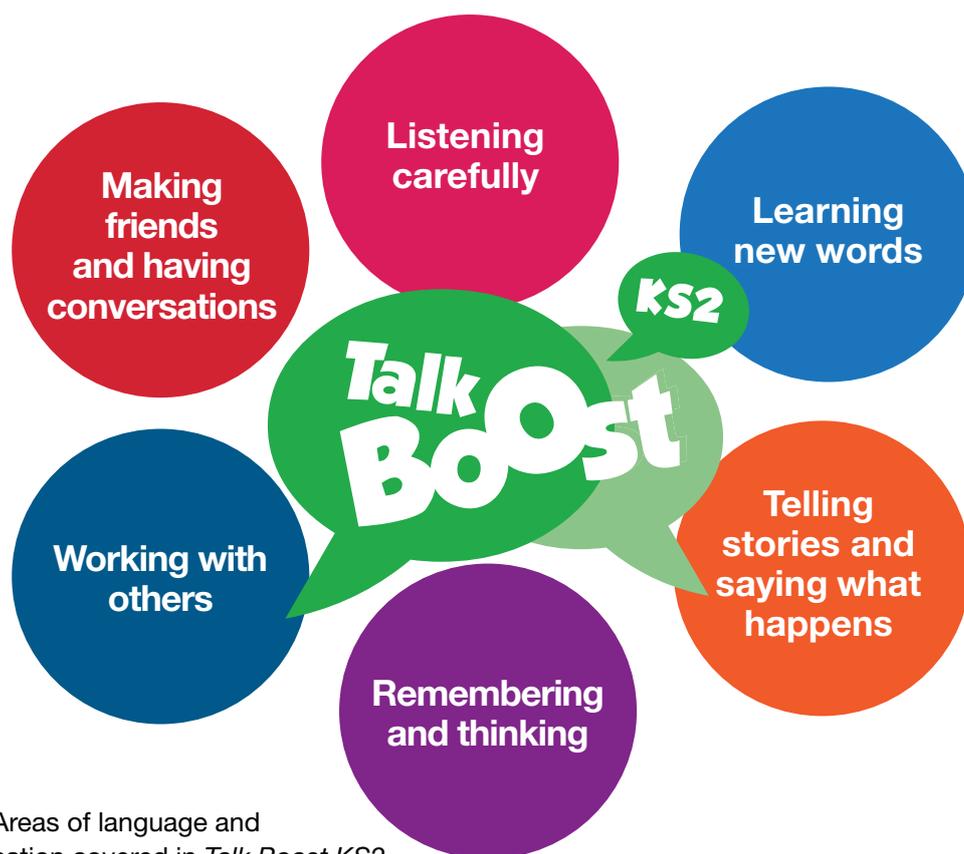
Figure 2: Areas of language and communication covered in *Talk Boost KS2*

Talk Boost KS2 covers the following main areas of language and communication which are phased in over the eight weeks of the intervention (see Figure 2). **Active listening skills (Listening carefully)**, drawing on work by Dolloghan & Caston[22] and Johnson,[23] are introduced in Week 1 as they are required throughout the intervention and beyond.

In Weeks 2 and 3 the focus is on developing vocabulary through Tier 2 words[24] (high frequency words with relevance across most subject areas, e.g. 'design', 'predict', 'summarise') and strategies for Learning new words,[25] rather than specific vocabulary items. Oral narrative skills are further reinforced in Week 4 with a focus on Telling stories and saying what happens.

Executive function and self-regulation skills (Remembering and thinking) (including working memory, inhibitory control and cognitive flexibility) provide critical supports for learning and development, and become increasingly important through the primary school years. There is some evidence to suggest that children with language difficulties may have additional difficulties with aspects of executive functioning.[26] Therefore it was felt important to include some strategies to support development in these areas, and these are built into the activities in Weeks 5 and 6.

Research on group working shows that children do better when they are given strategies for working effectively in a group

22 Dolloghan, C. & Kaston, N. (1986) 'A comprehension monitoring program for language impaired children', *Journal of Speech and Hearing Disorders*, 51, 264–71.
23 Maggie Johnson (SLT) has published widely on the subject of active listening.
24 Beck, I.L., McKeown, M.G. & Omanson, R.C. (1987) 'The effects and uses of diverse vocabulary instruction techniques' in McKeown, M.G. & and Curtis, M.E. (eds) *The nature of vocabulary acquisition*. Hillsdale, NJ: Erlbaum, pp. 147–63.
25 Parsons, S. 'Ten steps to becoming a word wizard', in Parsons, S., Law, J. & Gascoigne, M. (2005) 'Teaching receptive vocabulary to children with specific language impairment: a curriculum-based approach', *Child Language Teaching and Therapy* 21:1 pp. 39–59.
26 Henry, L., Messer, D. & Nash, G. (2012) 'Executive functioning in children with specific language impairment', *Journal of Child Psychology and Psychiatry*, Vol. 53, Issue 1, pp. 37–45.

(Working with others),[27] and when they are given time to practise them. Together with social skills **(Making friends and having conversations),** this is the focus for Weeks 7 and 8 of the intervention.

27 Wegerif, R., Mercer, N., Littleton, K., Rowe, D. & Dawes, L. (2004) *Talking for success: Widening access to educational opportunities through teaching children how to reason together.* (RG01-1222) Final report to the Esmée Fairbairn Foundation.

Teacher Manual

The Teacher Manual includes whole class activities and homework for the whole class. These are designed to help children consolidate new learning and to provide evidence-informed whole class speaking and listening activities, which will assist in all children's learning and progression.

The whole class activities either repeat activities that the *Talk Boost KS2* children have carried out during the week in their small group sessions, or are new activities that support the area of language that the group has focused on. There are suggestions for differentiation so that all children are challenged. When demonstrating the activities, the children taking part in *Talk Boost KS2* can be used as 'experts', which helps to develop their confidence and self-esteem.

The homework provides a link between home and the intervention and is differentiated for the whole class, including the children in the *Talk Boost KS2* group. These are language and communication-based tasks and include 'language tips' to help parents develop their child's language skills.

Also in the Teacher Manual are monitoring tools: the *Talk Boost KS2* Tracker (see below) and the Child self-rating scale, an informal assessment tool to help show progress in language and communication from the child's perspective.

Working below age expectations
The child has significant difficulty in one or more areas of language and communication which needs further investigation and possibly a referral to a speech and language therapist.
Working towards age expectations
The child has language and communication skills lower than would be expected for this age group and will benefit from *Talk Boost KS2* to further develop their communication and language skills. If the child has just completed *Talk Boost KS2* and made progress, but still falls within this range, they will benefit from continued targeted support within class using the strategies introduced in the intervention.
Working at age expectations
The child has age-appropriate language and communication skills; continue to support their further development through quality first teaching.

Table 1: Example of scoring guidance from the Tracker

Talk Boost KS2 Tracker

The Tracker has been developed specifically for this intervention to help identify children who will benefit the most and to track their progress. The *Talk Boost KS2* Tracker checks children's communication and language development against what is known to be typical in Years 3 and 4 (ages 7–9) and Years 5 and 6 (ages 9–11).

The Tracker is designed to cover the areas of language and communication addressed in the intervention. It contains direct questions and observations based on research evidence of what is typical at different ages. All resources required to administer the Tracker, apart from a timer and recording device, are provided.

Children's responses are scored using a four-point system to capture increasing rates of consolidation in a skill. The child's scores are totalled and response bands are colour-coded for each area of language, as well as the total overall score. This helps school staff interpret the scores, and to help to identify the action needed.

20 Higgins, S., Kokotsaki, D. & Coe, R. (2011) *Toolkit of strategies to improve learning: Summary for schools spending the Pupil Premium*. Durham: University of Durham/Centre for Evaluation & Monitoring, commissioned by the Sutton Trust.
21 Jones, P. & Hammond, J. (2016) 'Talking to learn: Dialogic teaching in conversation with educational linguistics', *Research Papers in Education*, Vol. 31, Issue 1.

Communication Detective Notebook

During the intervention children are **communication detectives**, finding clues to help them be a good communicator. The Communication Detective Notebook gives them some ownership and responsibility for their learning and helps to develop their independence skills. The Communication Detective Notebook contains tasks that summarise new learning across the different focus areas and is to be used as a reference **during** and **after** the *Talk Boost KS2* group sessions.

In the final week, the children discuss which strategies and resources they found most useful, so that they continue to use them in class after completing the intervention. The Communication Detective Notebook is kept in class as a permanent reminder of these strategies.

Staff training

In order to deliver *Talk Boost KS2*, both teaching assistants and class teachers take part in a one-day (5-hour) training session. During the training, staff have an opportunity to explore the intervention and the resources. They are also provided with an overview of language and communication development in Key Stage 2 (ages 7–11) and its importance for learning and development through the primary school years.

The intervention has been written to include and involve the class teacher; this supports the current SEND Code of Practice[28] and the teacher's role/responsibility for supporting all children in their class, and is why they are included in the training.

28 Department for Education/Department for Health (2015) Special educational needs and disability code of practice: 0 to 25 years. London: DfE (DFE-00205-2013).

Evaluation of *Talk Boost KS2*

Talk Boost KS2 was piloted and evaluated in a small-scale exploratory trial, with random assignment of schools to the intervention or comparison conditions. A mixed method of evaluation was used, including standardised and informal assessments involving teaching staff, children and parents.

The pilot consisted of two phases – the main phase involved data collection from 161 children in 21 schools, and it is this data which forms the basis of the analysis and reporting section of this report. A second phase was used to measure how robust the Tracker was and to see how children in Year 5 progressed with the intervention. Phase 2 involved 13 schools and 89 children.
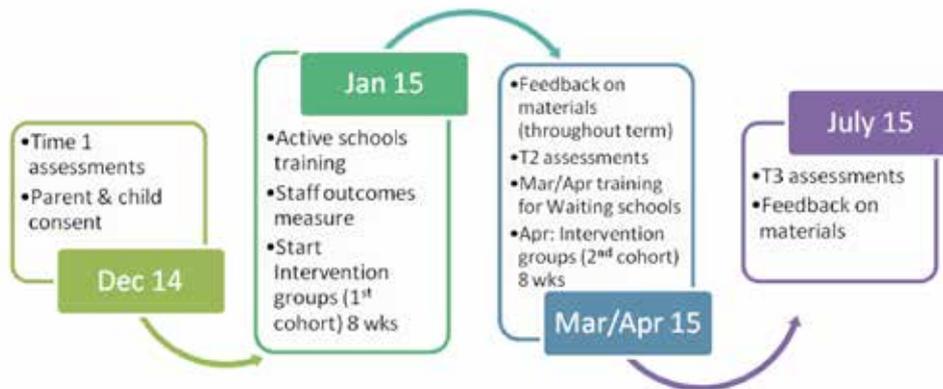

Figure 3: The timeline for Phase 1
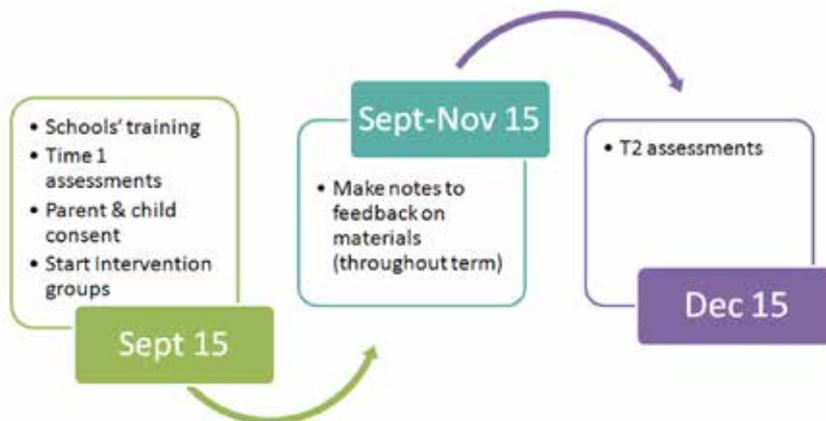
Figure 4: The timeline for Phase 2

Stated aims

Talk Boost KS2 was piloted between December 2014 and December 2015 to evaluate its impact on children's language development. The pilot was run in two phases; Phase 1 focused on children in Years 3 and 4 and Phase 2 on children in Year 5. The evaluation framework was designed with the support of Dr Catherine Adams at Manchester University to be as robust as possible.

The following desired outcomes were identified at the initial stages of project development and formed the basis of the evaluation.

Intended outcomes for schools

● Increased knowledge for some staff in how to support Key Stage 2 children's speech, language and communication (SLC).

● Increased confidence for some staff in use of strategies to support Key Stage 2 children's SLC.

● Increased confidence for some staff in identifying children who have SLCN.

Intended outcomes for children

● Children who have the *intervention* have improved language skills following the intervention – 70% of the children who receive the *intervention* will have age appropriate language skills following the intervention.

Intended impact

● Improved academic progress for children who attend the intervention groups.

● Improved reading comprehension for the intervention group.

Methodology

Children were recruited to the pilot through schools that were interested in taking part. The schools were randomly assigned to **active** (running the intervention) and **waiting** comparison groups. The children in the waiting comparison groups took part in *Talk Boost KS2* in the term after the active group and following their second assessment.

All the children were assessed:

● before the active group did *Talk Boost KS2* (Time 1)

● after they had done *Talk Boost KS2* (Time 2), and

● the active children one term after doing *Talk Boost KS2* (Time 3).

In this way we were able to compare the results for a group of children who did *Talk Boost KS2* with a group who did not.

Evaluation assistants, not employed by I CAN, who were either speech and language therapists or SLT students, were recruited to administer some assessments; they were unaware of whether the children were in the active or waiting comparison group.

Other assessments were completed by the class teachers, and the children and parents also completed evaluation tasks.

Participants

Schools in four areas of England were recruited to the project using contacts within local authorities and speech and language therapy teams. The schools were predominantly in areas of high social deprivation with mainly white, English first language populations. See Table 2 for a brief description of the schools. Information for this table is taken from the schools' most recent Ofsted reports; further details are in Appendix 3.

Below 3 on Index of Multiple Deprivation Decile*	SEN Above/well above average	Pupil Premium Above/well above average	EAL Below average
A = 81% W = 70%	A = 82% W = 70%	A = 100% W = 70%	A = 64% W = 100%

Table 2: Schools involved in the evaluation project

A = Active school; W = Waiting comparison school

*On this scale 1 shows that an area is in the most deprived 10% of the country; 10 indicates the area is in the least deprived 10%

Schools were sent information about the project and invited to take part by signing an agreement (see Appendix 2). Once recruited, schools were asked to identify four children in Year 3 (age 7–8) and four in Year 4 (age 8–9). Teachers were asked to select children with delayed language skills who they felt would benefit from a catch-up intervention. They were given guidance on which children to select (see Appendix 4).

Children with English as an Additional Language (EAL) were not excluded from *Talk Boost KS2* if it was felt they had a delay in both languages. However, children with strong home language skills but limited English were not included.

Teachers were provided with the Speech, Language and Communication Progression Tool[29] to identify children suitable for *Talk Boost KS2*. This tool was developed by the Communication Trust and is based on developmental norms. It consists of a number of elicited items for areas including:

● Understanding spoken language

● Understanding and using vocabulary

● Sentences

● Storytelling and narrative

● Speech

● Social interaction.

The tool is scored using a Red/Amber/Green rating, where scores falling in the Green range are considered typical for the child's age, and scores falling in the Red range indicate the child may need specialist investigation and support. Teachers were asked to select children whose scores fell within the Amber range.

Schools in each area were then randomly assigned to either an active group or a waiting comparison group. Table 3 shows how the two groups of children compared with each other – there were more children with EAL and free school meals in the active group.

	% EAL	% Free school meals	% female	% Year 3 (ages 7–8)	% Year 4 (ages 9–10)	% SEN
Active	18% (n = 16)	51% (n = 42)	36% (n = 31)	49% (n = 43)	51% (n = 44)	46% (n = 39)
Waiting comparison	5% (n = 3)	37% (n = 27)	27% (n = 20)	53% (n = 40)	47% (n = 35)	44% (n = 31)

Table 3: Comparison of the active and the waiting groups

29 See www.thecommunicationtrust.org.uk/resources/resources/resources-for-practitioners/progression-tools-primary/

Baseline assessments

All the children taking part were assessed using a combination of standardised assessments, checklists and surveys.

Children's language and communication

● Speech, Language and Communication Progression Tool: Administered by teachers or teaching assistants who knew the children.

● Subtests from the *Assessment of Comprehension and Expression (ACE):* Sentence Comprehension; Semantic Decisions; Naming; and Narrative. This standardised assessment was administered by evaluation assistants.

● Child self-rating scale: In addition, the evaluation assistants supported the children to rate their own communication skills and confidence using the Child self-rating scale, developed by the project team (see Appendix 5).

● Initially parents were asked to rate their children's communication skills and their confidence in supporting them. From the data obtained, scores appeared to be unreliable (inflated as compared to practitioner responses and direct assessment) so a retrospective Parent questionnaire was developed to capture their views on their child's progress(see Appendix 6).

Children's academic performance

● *York Assessment of Reading for Comprehension (YARC):* Administered by the evaluation assistants. This assessment was scored for reading accuracy and comprehension of the text.

● Learning behaviour checklist: Completed by teaching staff for each child (see Appendix 7). The checklist covers a range of communicative behaviours which support learning in the classroom. It was developed by specialists in speech, language and communication as part of the project, A Chance To Talk. There are 11 items in the checklist and teachers rate their occurrence from 1 (never observed) to 5 (child uses all the time).

Teaching staff confidence

Additional measures included a baseline confidence measure completed by teaching staff to measure the level of their confidence in identifying children with delayed language and in knowing how to support them (Staff outcomes survey). The quality of both teaching staff and parent training was also evaluated using a post-training questionnaire.

Phase 2: *Talk Boost KS2* Tracker

Talk Boost KS2 Tracker: this new measure was added to the battery of assessments in Phase 2 in order to evaluate its suitability for use in identifying children for *Talk Boost KS2* and in measuring their progress.

Assessment	Who carried them out	When (Time 1 = T1, etc)
ACE: Sentence Comprehension; Semantic Decisions; Naming; and Narrative subtests	Evaluation assistant	T1; T2; T3 (all children)
YARC: Accuracy and Comprehension measures	Evaluation assistant	T1; T2;T3 (all children)
Child self-rating scale	Evaluation assistant	T1; T2;T3 (all children)
SLC Progression Tool	Teacher	T1; T2; T3 (all children)
Learning behaviour checklist	Teacher	T1; T2; T3 (all schools)
Staff outcomes survey	Teacher and teaching assistant	T1; T2; T3 (all schools)
Quality audit of staff training	Teacher and teaching assistant	Following staff training
Parent questionnaire	Parents	T2 (active schools only)

Table 4: Phase 1 assessments

Assessment	Who carried them out	When (Time 1 = T1, etc)/Which children
ACE: Sentence Comprehension; Semantic Decisions; Naming; and Narrative subtests	Evaluation assistant	T1; T2; Year 5
YARC: Accuracy and Comprehension measures	Evaluation assistant	T1; T2; Year 5
Child self-rating scale	Evaluation assistant	T1; T2; Year 5
SLC Progression Tool	Teacher/Evaluation assistant	T1; T2; Year 5 T1;T2; Year 3 and 4
Learning behaviour checklist	Teacher/Evaluation assistant	T1; T2; Year 5 T1;T2; Years 3 and 4
Talk Boost KS2 Tracker	Teacher	T1; T2; Years 3 and 4

Table 5: Phase 2 assessments

Assessments after *Talk Boost KS2*

Following completion of *Talk Boost KS2* all participating children were re-tested using the same range of assessments, checklists and surveys, delivered by the evaluation assistants and the teaching staff.

In addition, parents of the children who had taken part in *Talk Boost KS2* were asked to complete a retrospective questionnaire to capture whether they felt their children's communication and language skills had changed.

To supplement these measures a representative sample of teaching staff was also interviewed following *Talk Boost KS2* using a semi-structured interview format (**Staff interviews**). These interviews were carried out over the phone by a member of I CAN staff who was not directly involved in delivering *Talk Boost KS2.*

Evaluation results
Analysis of data: Phase 1

Phase 1 data from the SLC Progression Tool, Learning behaviour checklist, the *ACE* and the *YARC* were submitted for analysis to Dr Cathy Adams and Dr Jenny Freed at Manchester University.

Time 1 and Time 2

The total number of children involved was 164:

- 87 in the active group

- 77 in the waiting comparison (WC) group.

Statistical analysis was conducted on data from children with complete datasets for each measure; the number of children included in the analysis is specified below with the results from the analysis. Mean scores were compared for each measure and a separate analysis of variance (ANOVA) was conducted for scores on each of the subscales.

SLC Progression Tool

Table 6 shows the mean scores for children in the waiting comparison and active groups at Time 1 and Time 2 on the SLC Progression Tool subscales. Each subtest has a score out of 15, with higher scores indicating a higher level of performance.

	Waiting comparison			Active			p values	
	Time 1	Time 2	% change	Time 1	Time 2	% change	Between groups (WC and active)	Between times (T1 and T2)
Understanding spoken language	10.38	10.41	0.3%	11.57	13.08	13.1%	p < 0.001	p < 0.001
Understanding and using vocabulary	9.76	10.52	7.8%	10.59	12.71	20.0%	p = 0.001	p < 0.001
Sentences	9.88	10.48	6.1%	10.27	12.55	22.2%	p = 0.007	p < 0.001
Storytelling and narrative	8.26	8.45	2.3%	8.79	11.09	26.2%	p < 0.001	p < 0.001
Speech	9.92	10.46	5.4%	9.82	11.98	22.0%	p = 0.098	p < 0.001
Social interaction	10.10	10.91	8.0%	10.87	11.95	9.9%	p = 0.009	p < 0.001

Table 6: Mean scores for children in the waiting comparison and active groups at Time 1 and Time 2 on the SLC Progression Tool

## Scores at Time 1 and Time 2 on the Progression tool for children in active and waiting control groups
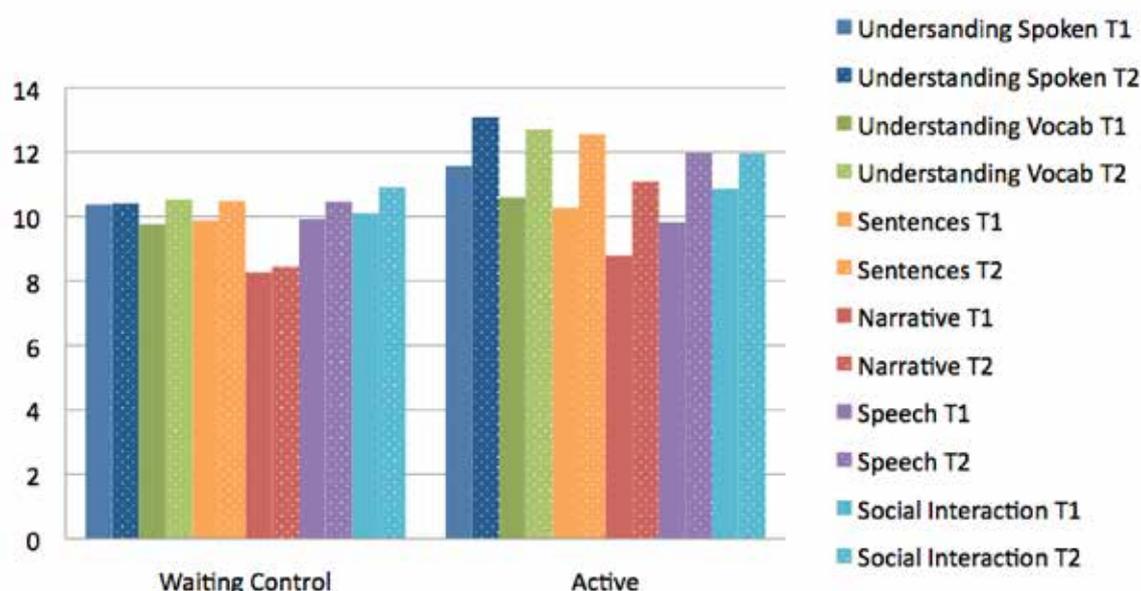
Figure 5: Mean scores for children in the waiting comparison and active groups at Time 1 and Time 2 on the SLC Progression Tool

Children in the active group showed more substantial increase in scores between Time 1 and Time 2 than those in the waiting comparison group. This can be seen in Figure 5.

ACE

Table 7 shows the mean standard scores for children in the waiting comparison and active groups at Time 1 and Time 2 on the ACE subtests. Standard scores are based on a population mean of 10 and standard deviation of 3.

The pattern of results was the same for each of the ACE subtests. The results suggest that on each subtest there was an increase in ability over time (between Time 1 and Time 2), but there was no significant difference between the waiting comparison and active groups using this assessment.

	Waiting comparison		Active	
	Time 1	Time 2	Time 1	Time 2
Sentence Comprehension	7.28	8.85	7.01	8.44
Semantic Decisions	7.05	8.08	6.85	7.54
Naming	6.94	8.16	6.62	7.71
Narrative	6.86	8.97	7.32	8.93

Table 7: Mean standard scores for children in the waiting comparison and active groups at Time 1 and Time 2 on the ACE

	Waiting comparison		Active	
	Time 1	Time 2	Time 1	Time 2
Accuracy	98.77	96.76	93.61	93.33
Comprehension	96.07	91.80	93.58	90.55

Table 8: Mean standard scores for children in the waiting comparison and active groups at Time 1 and Time 2 on the *YARC*

YARC

Table 8 shows the mean standard scores for children in the waiting comparison and active groups at Time 1 and Time 2 on the YARC Accuracy and Comprehension subtests. Standard scores are based on a population mean of 100 and standard deviation of 15.[34]

The results for the Accuracy subset show that between Time 1 and Time 2 children in both groups did not show a significant improvement. On the Comprehension subtest, these results suggest that children's comprehension ability reduced between Time 1 and Time 2, which might be a result of increasing demands of the Comprehension task at an older age. There was no difference between groups in terms of the magnitude of this change.

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34 Standard scores < 70 on the YARC have been recoded as 69 for the purposes of the analysis.

Learning Behaviour Checklist Active Group:
Percentage of teachers or TA's rating pupil's skills as "frequently" or "always"

Figure 6: Learning behaviour checklist active group

Comments from teachers who completed the Learning behaviour checklist included:

'This has really improved, especially the quality of the questions asked and the precision of what has been misunderstood.'

'Story writing really improved.'

'Asks really relevant questions now.'

'Very good at role taking; inputs a lot more now.'

Time 3

There were 87 children in the active group. Analysis of the Time 3 data was conducted using separate ANOVAs for children with complete data for that measure (i.e. data collected at Time 1, Time 2 and Time 3). Time 3 data is not available for the waiting comparison group as they had taken part in *Talk Boost KS2* by then.

It should be noted that the mean scores shown in the tables below will differ slightly to those in the Time 1 and Time 2 analysis. This is because these tables only include children with complete data.

Learning Behaviour Checklist Active Group:
Percentage of teachers or TA's rating pupil's skills as "frequently" or "always"


Figure 6: Learning behaviour checklist active group

Comments from teachers who completed the Learning behaviour checklist included:

'This has really improved, especially the quality of the questions asked and the precision of what has been misunderstood.'

'Story writing really improved.'

'Asks really relevant questions now.'

'Very good at role taking; inputs a lot more now.'

Time 3

There were 87 children in the active group. Analysis of the Time 3 data was conducted using separate ANOVAs for children with complete data for that measure (i.e. data collected at Time 1, Time 2 and Time 3). Time 3 data is not available for the waiting comparison group as they had taken part in *Talk Boost KS2* by then.

It should be noted that the mean scores shown in the tables below will differ slightly to those in the Time 1 and Time 2 analysis. This is because these tables only include children with complete data.

	n	Time 1	Time 2	Time 3
Understanding spoken language	23	11.04	12.74	13.00
Understanding and using vocabulary	22	9.00	12.45	12.82
Sentences	23	10.09	11.83	11.91
Storytelling and narrative	23	7.96	12.61	12.39
Speech	12	10.17	12.33	13.50
Social interaction	22	10.73	12.27	12.64

Table 9: Mean scores for children in the active group at Time 1, Time 2 and Time 3 on the SLC Progression Tool

SLC Progression Tool

Table 9 shows the mean scores for children in the active group at Time 1, Time 2 and Time 3 on the SLC Progression Tool subscales. Each subtest has a score out of 15, with higher scores of 13 and above indicating typical levels.

On each of the SLC Progression Tool subscales there was a difference between scores at Time 1, Time 2 and Time 3 using separate ANOVAs. Scores for Understanding spoken language, Understanding and using vocabulary, Storytelling and narrative and Social interaction showed that there was a significant difference between Time 1 and both Time 2 and Time 3 scores; the difference between Time 2 and Time 3 scores was not significant. This suggests that although children did not make further progress between Time 2 and Time 3, they maintained the improvement that was made between Time 1 and Time 2.

For Sentences and Speech there was a significant difference between Time 1 and Time 3 scores but the difference between Time 1 and Time 2 scores, and Time 2 and Time 3 scores, was not significant. This suggests that although improvement was not demonstrated immediately after *Talk Boost KS2* (Time 2), the benefits could be seen at Time 3. This may reflect a delayed intervention effect/consolidation of learning.
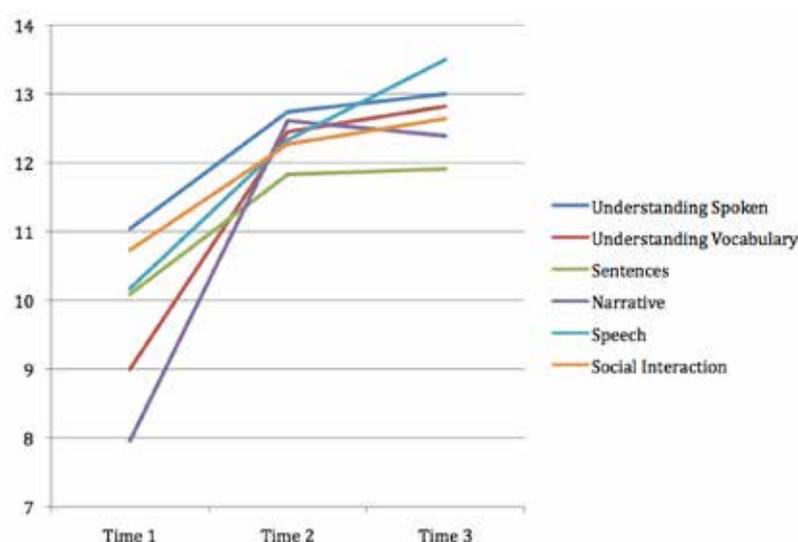

Figure 7: Mean scores for children in the active group at Time 1, Time 2 and Time 3 on the SLC Progression Tool

	n	Time 1	Time 2	Time 3	p
Sentence Comprehension	75	7.09	8.43	9.05	< 0.001
Semantic Decisions	75	6.83	7.52	7.40	0.011
Naming	75	6.52	7.68	7.89	< 0.001
Narrative	72	7.21	8.82	9.57	0.001

Table 10: Mean standard scores for children in the active group at Time 1, Time 2 and Time 3 on the ACE

ACE

On each of the *ACE* subtests there was a difference between scores at Time 1, Time 2 and Time 3. Using Bonferroni corrections tests for Sentence Comprehension, Naming and Narrative showed that there was a significant difference between Time 1 and both Time 2 and Time 3 scores; the difference between Time 2 and Time 3 scores was not significant.

This suggests that although children did not make further progress between Time 2 and Time 3, they maintained the improvement that was made between Time 1 and Time 2.
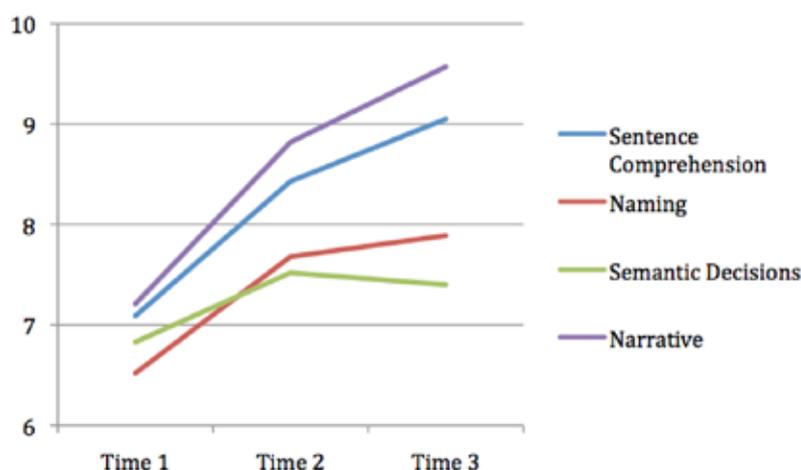

Figure 8: Mean scores for children in the active group at Time 1, Time 2 and Time 3 on the ACE

	n	Time 1	Time 2	Time 3	P
Accuracy	74	93.76	93.35	93.36	0.844
Comprehension	74	93.74	90.82	97.19	0.001

Table 11: Mean standard scores for children in the active group at Time 1, Time 2 and Time 3 on the YARC

YARC

Table 11 shows the mean scores for children in the active group at Time 1, Time 2 and Time 3 on the *YARC* Accuracy and Comprehension subtests. Standard scores are based on a population mean of 100 and standard deviation of 15.[35]

For Accuracy there was a no significant difference overall between Time 1, Time 2 and Time 3 scores. This suggests that the accuracy scores did not change over the course of the evaluation project.

The results suggest that children's Comprehension ability reduced between Time 1 and Time 2 (although not significantly), which might be a result of increasing demands of the Comprehension task at an older age. However, the results then showed an improvement in ability between Time 2 and Time 3, which may reflect a delayed treatment effect/ consolidation of learning.

It should be noted that on both subtests of the *YARC* mean scores are within the normal range at all time points.

35 Standard scores < 70 on the YARC have been recoded as 69 for the purposes of the analysis.

Analysis of data: Phase 2

The evaluation was extended to a second phase for two reasons:

● to look at the efficacy of *Talk Boost KS2* with Year 5 pupils

● to investigate the reliability of the *Talk Boost KS2* Tracker (with Year 3 and Year 4 children).

Phase 2 consisted of a group of Year 5 children in existing pilot schools and a further group of schools who used *Talk Boost KS2* with Year 3 and Year 4 pupils. In total there were 89 children in 13 schools.

The Year 5 children were assessed using the same battery of assessments as the Year 3 and Year 4 children in order to provide information on how they progressed following *Talk Boost KS2*. The results were analysed and showed that the Year 5 children made similar progress to the children in Phase 1. There was no comparison group.

An additional cohort of children in Years 3 and 4 was recruited, and teaching staff were asked to complete the *Talk Boost KS2* Tracker. Results were compared to the information from the SLC Progression Tool and the ACE in order to provide correlation. These results are reported in more detail in Appendix 1. Analysis indicates that the Tracker is able to support the selection of children for *Talk Boost KS2* and to measure their progress.

Parent questionnaire

In order to gain an overall picture of the parents' view of *Talk Boost KS2* the information from both phases was combined and analysed together. A total of 84 parents completed a retrospective questionnaire from across the two phases of the pilot: 87% of parents thought their child's communication had improved after *Talk Boost KS2*.

Also, 69% of parents felt their children were better at asking for help with unfamiliar words, and were better at talking to family members.

'He is a completely different child; full of confidence. He is willing to speak and have a conversation with people he previously would have just tried to ignore because he didn't have the confidence to speak to them.'
Parent questionnaire

Figure 9 shows parents' responses in several key areas of communication when asked to rate whether their child's communication skills were better, the same or worse following *Talk Boost KS2*.
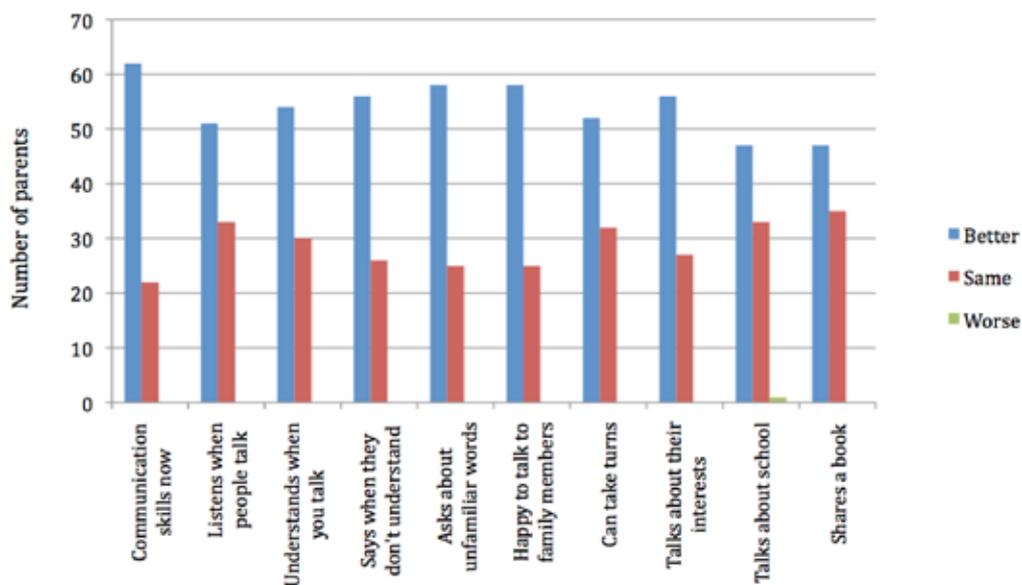
Figure 9: Parent questionnaire responses in key areas of communication

Staff outcomes survey

In Phase 1 teaching staff were asked to complete surveys at the start of the pilot (Time 1) and when the active schools had completed *Talk Boost KS2* (Time 2). Teachers and teaching assistants rated their confidence levels on both identifying and supporting children with speech, language and communication on a scale of 1 (not at all confident) to 5 (very confident):

● 23 staff from active schools completed the survey at Time 1 and 32 at Time 2.

● 37 staff from waiting comparison schools completed the survey at Time 1 and 26 at Time 2.

Figure 10 shows that the average confidence ratings increased with staff in the active schools compared to staff in the waiting comparison schools.

In the active schools the staff's confidence rating in identifying children with SLCN increased by 12% compared to only 6% in the waiting comparison schools. Their confidence rating in supporting language increased by 23% compared to 6% in the waiting comparison schools.
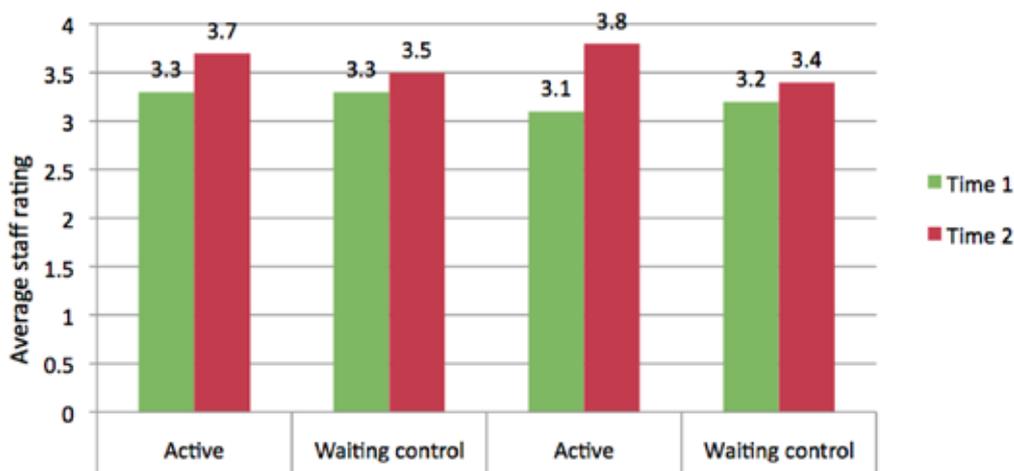
Figure 10: Staff outcomes survey responses
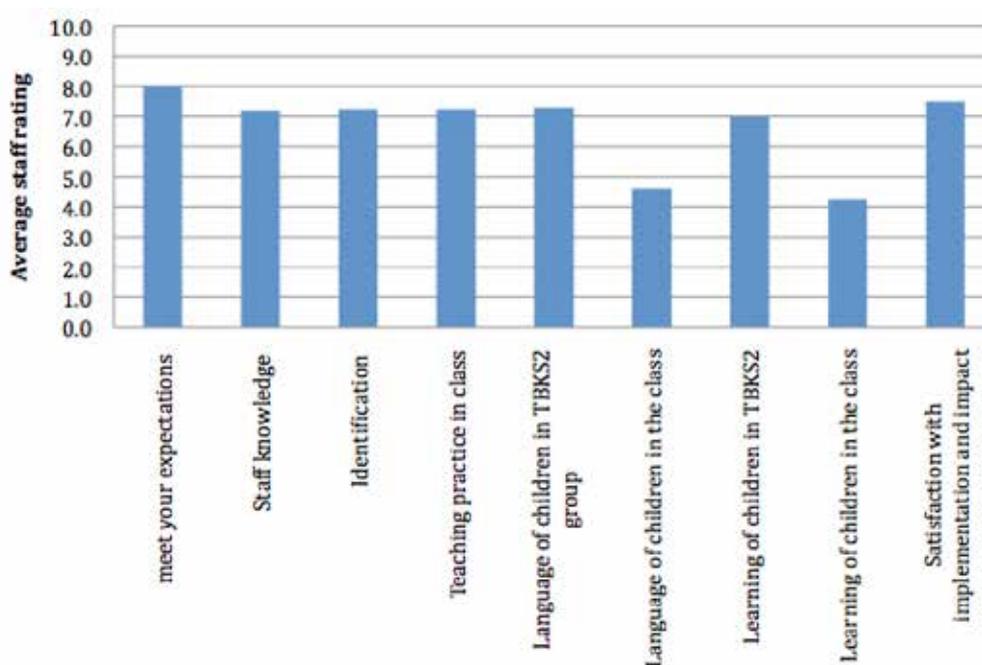
Figure 11: Staff interview responses: key areas of impact

Staff interviews

Semi-structured interviews were conducted with five members of staff from a selection of schools in each of the pilot areas. Their roles included Special Educational Needs Coordinator (SENCo), teaching assistant and Assistant Head Teacher. As part of the interview they were asked to rate *Talk Boost KS2* in a number of areas from 1 (no effect) to 10 (maximum effect).

Figure 11 gives the summary of responses for key areas of impact across the school, ranging from rating whether *Talk Boost KS2* met their expectations to whether they felt it had had an impact on children's learning.

The average scores showed high levels of satisfaction, especially in terms of the direct impact on children who took part in *Talk Boost KS2*. This included rating an improvement in children's language and learning.

Staff interviewed also felt there had been an impact on staff knowledge and skills and their ability to identify children with SLCN. These are all areas in which teaching staff often report that they lack skills and confidence, particularly in Key Stage 2.[36]

'I think there's more confidence, I think better use of sentence structure, longer, more complex sentences used and probably better understanding of following instructions and that's generalised.'
SENCo, Clifton Green Primary

'It's given them a range of skills and strategies to independently support and to learn how to ask for support when looking at new vocabulary, new language, interpreting language, and their reading comprehension.'
Inclusion Manager, Oaklands Primary

'The intervention enabled us to really focus on those children who are sometimes overlooked. We could start to consider "are

36 Lee, W. (2013) A generation adrift. London: The Communication Trust. Available at www.thecommunicationtrust.org.uk/media/31961/tct_genadrift.pdf

there any children who could benefit from this where communication is an issue for them?" rather than it being attainment. It focused our attention on those children who may've been overlooked and can they be suitable for this intervention and that really helped us.'
Assistant Head, St John's Primary

'In the process of delivering it and identifying children they've really had to think about speech and language and the children in the classroom in a way that they probably haven't had to do before. People knew that speech and language would impact on your reading and writing but I think they've now started to think actually this child is struggling with reading and writing is it actually something to do with their language development?'
SENCo, Clifton Green Primary

Child self-rating scale

Evaluation assistants carried out a rating task with the children. Using a scale of 1–5, where 1 was negative and 5 positive, children were asked to rate how they felt about their communication skills (see Appendix 5). Across the two phases of the *Talk Boost KS2* evaluation:

● 160 children from active groups completed a rating scale at Time 1 and Time 2

● 71 children from the waiting comparison groups completed a rating

scale at Time 1 and Time 2 (fewer children completed the scale because we combined Phase 1 and 2 results and had no comparison group in Phase 2).

Although there were some positive trends, neither active nor waiting comparison group scores showed a statistically significantly change between Time 1 and Time 2. This may be expected as *Talk Boost KS2* aims to develop meta-linguistic skills, so the lack of change may be a result of an increased awareness of difficulties.

Overall there was an increase in positive responses to the statements 'I ask when I don't know what to do' (42% point increase) and 'I ask when I don't understand' (30% point increase).

The scores for 'I can listen to stories' and 'Working in small groups' also increased (by 12% and 19% points respectively).

These are all areas that *Talk Boost KS2* activities directly target.

Conclusions

Talk Boost KS2 is a manualised intervention for children aged between 7 and 10 years with delayed language skills. The aim of this trial was to see if taking part in *Talk Boost KS2* improved children's language and communication skills, in particular those skills that are important in supporting children to learn in class and manage social interactions in school.

Functional communication measures including the SLC Progression Tool and Learning behaviour checklist, as well as the Parent questionnaire, indicate that there are clear improvements in these skills compared to a group of similar children who did not take part in *Talk Boost KS2*.

Progress towards aims

At the start of the project the following outcomes and impact were identified.

Intended outcomes for schools

● Increased knowledge for some staff in how to support Key Stage 2 children's speech, language and communication (SLC).

● Increased confidence for some staff in use of strategies to support Key Stage 2 children's SLC.

● Increased confidence for some staff in identifying children who have SLCN.

Teaching staff and members of the school's senior leadership teams reported increased knowledge and confidence in supporting children's speech, language and communication, and in identifying children who were struggling with these skills.

Intended outcomes for children

● Children who have *Talk Boost KS2* have improved language skills following the intervention - 70% of the children who receive *Talk Boost KS2* will have age-appropriate language skills following the intervention.

Children who took part in *Talk Boost KS2* showed improved language skills compared to a similar group who did not take part.

As Table 12 shows, the 70% within typical levels target was not reached. However, on average the children made considerable progress against their starting points in all areas measured.

	Understanding spoken language		Understanding and using vocabulary		Sentences		Storytelling and narrative		Speech		Social interaction	
Before and after *Talk Boost KS2*	Before n = 77	After n = 77	Before n = 76	After n = 76	Before n = 77	After n = 77	Before n = 77	After n = 77	Before n = 71	After n = 68	Before n = 76	After n = 77
Percentage of children working at expected levels	N = 32 42%	N = 51 66%	N = 25 33%	N = 50 66%	N = 22 29%	N = 49 64%	N = 11 14%	N = 27 35%	N = 11 15%	N = 38 56%	N = 20 26%	N = 36 47%

Table 12: Analysis of SLC Progression Tool data

Intended impact

● Improved academic progress for children who attend the *Talk Boost KS2* groups.

● Improved reading comprehension for the *Talk Boost KS2* groups.

It was not possible within the scope of this evaluation to gather data on individual children's academic attainment. The trial was conducted at a time of huge change across the primary sector, with a new national curriculum and changes in the way in which progress and attainment is measured.

On interview, however, senior staff rated the impact on children's learning as 7 out of a possible 10. Comments on academic progress include:

'Confidence, particularly in class and their ability to follow instructions and process language, and for some of the children particularly impacted on story writing and things like that.'
SENCo, St James Primary

'All the pupils now are much better at listening, and not just looking like they're listening but actually engaging and thinking about the same thing and about questions they want to ask. That's been quite a big change in all of the children. In terms of

asking for help and stuff they've got their strategies there that they're supposed to use and some of them are using it more automatically; and some of them might just need a bit more prompting [such as] "What question would you like to ask me? What part are you stuck on?"'
Assistant Head, St John's Primary

There is some indication that *Talk Boost KS2* may have impacted on the children's reading comprehension but it was not possible to follow this up in more detail within the scope of this evaluation. This is an area for further investigation in the future.

Anecdotally, teachers also reported an impact on writing and again this is an area which warrants further investigation in the future.

Discussion

Key Stage 2 is a busy time for both children and teaching staff, with an increased focus on the academic curriculum. Children need to have good language and communication skills to be able to learn and respond to the increased complexity of language, and at the same time forming friendships becomes increasingly important to them as individuals. Delayed language skills impact on both academic and social performance in school at this time.

Children who still struggle with language at this age, however, have had a number of years in school with exposure to good language models from the adults around them. Those who still show signs of language delay at this age may therefore have more significant difficulties, which are less open to remediation than they are at Key Stage 1.

In addition, although teaching staff for this age group are very aware of the expected levels of skills across a range of curriculum areas, many report that they lack confidence in identifying delayed language skills.[37] Tools that can be used by teaching staff to support the identification and tracking of children's speech, language and communication skills are not readily available or widely used. Standardised assessments are designed for use only by speech and language therapists or psychologists, predominately as a diagnostic tool to identify a clinical population.

Within this context the results of our evaluation of *Talk Boost KS2* show clearly that it is an effective intervention in narrowing the gap for children with delayed language skills. Given the known link between social deprivation and language delay[38] this would indicate that *Talk Boost KS2* is a good use of Pupil Premium funding. As an evidenced intervention with an accompanying tool (the *Talk Boost KS2* Tracker) to measure and show progress made as a result of the intervention, *Talk Boost KS2* fulfils many of the key criteria identified by Ofsted as most effective Pupil Premium spend.[39]

The results of the SLC Progression Tool showed that the children taking part in the active *Talk Boost KS2* group made significant progress compared to the waiting comparison group in all subtests except for Speech. The fact that subtests which were directly targeted in *Talk Boost KS2* showed

37 Lee, W. (2013) *A generation adrift*. London: The Communication Trust. Available at www.thecommunicationtrust.org.uk/media/31961/tct_genadrift.pdf
38 Lindsay, G. Desforges, M., Dockrell, J., Law, J., Peacey, N. & Beechah, J. (2008) *Effective and efficient use of resources in services for children and young people with speech, language and communication needs*. Department for Children, Schools and Families (Research Report DCSF-RW053).
39 Ofsted (2013) *The Pupil Premium: How schools are spending the funding successfully to maximise achievement*. London: Ofsted.

change and those which were not targeted (speech) showed little change, helps to confirm that the results are likely to be due to *Talk Boost KS2* rather than a random result or one influenced by teacher bias. Speech levels had improved by Time 3, a term later, which might indicate a delayed effect of improved awareness of language skills in general on children's ability to monitor and correct their own speech errors.[40]

The **Learning behaviour checklist** also showed significant progress in areas that are directly addressed in *Talk Boost KS2*, including active listening, comprehension monitoring skills, group discussion and using narrative. This very specific progress again helps to confirm that the effect is due to *Talk Boost KS2* and not random improvement or staff bias.

The revised national curriculum[41] places less direct emphasis on spoken language as a skill in itself than previous curricula. However, continued emphasis on approaches such as assessment for learning and group work, as well as higher expectations for children's learning, mean that spoken language skills are an essential foundation on which learning takes place. In the trial, teachers and teaching assistants identified a clear need for children to have good spoken language skills for their academic progress and to support their behaviour and engagement in the classroom.[42] *Talk Boost KS2* supports children to develop language skills in both these crucial areas.

The results from the *ACE* and *YARC* assessments a term following *Talk Boost KS2* give some indication of an effect on consolidating progress in language and communication skills and a possible impact on reading comprehension.

Due to the impact of *Talk Boost KS2* on children's language in the active schools it was not felt appropriate to delay the children in the waiting comparison schools access to *Talk Boost KS2* by a further term. This meant that there was no comparison group available at Time 3 (one term after *Talk Boost KS2*). The effect of consolidation of newly acquired skills and the impact of improved language on literacy skills such as reading comprehension and writing would benefit from further investigation in a future study.

Using trained teaching assistants to carry out evidenced interventions is recognised as a valuable use of their time, as it

40 Dean, E.C., Howell, J., Waters, D. & Reid, J. (1995) 'Metaphon: A metalinguistic approach to the treatment of phonological disorder in children', *Clinical Linguistics & Phonetics*, Vol. 9, No. 1, 1–58.
41 See www.gov.uk/government/collections/national-curriculum
42 I CAN response to DfE Purpose and Quality of Education enquiry 2016: see www.ican.org.uk/~/media/Ican2/Whats%20the%20Issue/I-Can-Says/I-CAN-evidence-Purpose-and-Quality-of-education-Inquiry.ashx

strengthens their role in supporting children to catch up with their peers.[43] The positive response of teaching assistants to the training and to *Talk Boost KS2* should mean that they will carry over some of the strategies and ideas for supporting language and communication into the classroom.

Teachers are also closely involved in *Talk Boost KS2* – completing the Tracker, delivering the whole class activity and setting the homework task, meaning that they develop more awareness of the language levels of the children. *Talk Boost KS2* gives teachers structured ideas and strategies to support all children's language and communication in the classroom. Evaluating the impact of delivering *Talk Boost KS2* on their wider practice would be interesting.

43 NAO report for DfE (2015) *Funding for disadvantaged pupils*. HC90 Session 2015–2016.

Limitations and challenges

Taking part in the project posed some challenges for schools.

The teaching staff supporting the pilot reported several challenges in carrying out the evaluation of *Talk Boost KS2*:

● Finding space within the school and timetabling three sessions per week over eight weeks. Physical space is always at a premium within schools and careful planning and timetabling was required to find a quiet space to carry out the small group activities. Teaching assistant (TA) time is also tightly timetabled, so again forward planning was required in order to identify TAs to receive the training and carry out *Talk Boost KS2*.

● Competing interventions – Key Stage 2 is often a time when schools introduce targeted interventions to support children's maths and English attainment. Some schools in the pilot study had multiple interventions being implemented across the school. Making language and communication a priority and recognising the value of investing in an evidenced intervention meant that some schools dropped or delayed other interventions to ensure that *Talk Boost KS2* could be run effectively.

● Some teachers in Phase 1 of the project reported that they found carrying out the whole class activities and setting the homework task challenging. As a result, further ideas and suggestions were added to the Teacher Manual to support staff who were less confident in setting spoken language tasks and also to support repeating *Talk Boost KS2* with new small groups in subsequent terms during the school year.

● Teaching staff reported that using the assessments as well as *Talk Boost KS2* helped them to identify children with delayed language skills with more confidence. However, they also reported that the SLC Progression Tool and Learning behaviour checklist were lengthy and time consuming to carry out for each child. This led to the development of the *Talk Boost KS2* Tracker, which combines key areas of language and communication for learning into one tool.

The evaluation itself also had limitations:

● The use of standardised assessments to measure progress after a time-limited intervention has challenges. The ACE was designed as a diagnostic test for the identification of language disorder, not for a non-clinical population (i.e. with delayed language), and is not designed to measure progression.

● A range of non-standardised

assessments were also used, including checklists and bespoke measures. The validity of these measures is not established in the way that standardised assessments are. Nevertheless they proved able to identify significant changes in children who took part in *Talk Boost KS2*. Using the same measures with children who did not take part indicates these changes are likely to be due to *Talk Boost KS2* itself.

● Although some of the measures were collected by evaluation assistants who were not aware of when the children were doing *Talk Boost KS2*, other measures were conducted by teaching staff who did know. The risk of bias was mitigated by ensuring that teaching staff did not retain copies of the measures, and new record sheets were used at each time point so comparisons between scores could not be made.

● Judgements about academic progress proved too challenging to gather at a time of change within the curriculum and with assessment. It was not possible, therefore, to measure any possible impact on children's attainment.

Areas for further investigation

As has been stated, a future evaluation of the impact of *Talk Boost KS2* on reading comprehension would be of value. Although there was some indication from measures of the active group of children at Time 3 that they had made progress in this area, further evaluation is required to confirm these findings.

It could be theorised that an improvement in oral narrative skills would result in improved written narrative. There was some anecdotal support for this from teaching staff taking part in the evaluation. A future evaluation of the impact of *Talk Boost KS2* on written narrative skills would also be of value.

Appendices

Appendix 1
Validation of the *Talk Boost KS2* Tracker

● In Phase 1 at Time 2 the *Talk Boost KS2* Tracker was validated against the ACE scores and the scores from the Speech, Language and Communication Progression Tool from two groups, one from Year 3 and one from Year 4. In Phase 2, seven children's Time 1 and Time 2 Tracker scores were matched to the SLC Progression Tool scores.

● No formal correlation analysis was carried out. However, by comparing children's percentile scores on the ACE with the colour banding on the Tracker, we were able to establish how accurately the Tracker judged levels of language We used:

– scores in the 1st percentile (labelled as 'extremely low score' on the ACE) to mean Red on the Tracker

– scores in the 2nd to 16th percentiles (labelled as 'moderately low score' on the ACE) to mean Amber on the Tracker

– scores above the 16th percentile (labelled as 'average score' on the ACE) to mean Green on the Tracker.

Through this comparison, we were able to conclude that there was an informal correlation between the scores on the ACE and the Tracker scores.

● There were some differences in the Tracker scores and the SLC Progression Tool results. This may be explained by the differences in the subsections in the tools, meaning that it is not entirely a comparison of the same skills. For example, in the Tracker the Vocabulary section assesses strategies and expressive/generative abilities, whereas the SLC Progression Tool focuses far more on receptive skills.

● Further validation was carried out by I CAN advisors to moderate consistency and quality of Tracker use. Sixteen Trackers taken from various schools in Phase 2 of the pilot were checked independently by four advisors . Each advisor had four Trackers; the before and after scores for one child and either before or after forms for two other children. They found that staff often made errors when calculating the score. This has been addressed on the online version where the scoring is automated. They also found some inconsistency in how staff were interpreting children's responses in the 'Telling stories and saying what happens' section. This has led to more detailed scoring guidance being included in the revised version of the Tracker.

● Finally, the Tracker was trialled by practitioners in Phase 2 schools to gather feedback.

● The Tracker was shown to be sensitive to progress in assessment before and after *Talk Boost KS2*. Staff who had used the Tracker were provided with a questionnaire for providing feedback about using the Tracker. Their responses were used to shape the revised version.

Appendix 2
Agreement: School/I CAN Evaluation assistant commitments

School commitment	I CAN commitment	Evaluation assistant commitment
• Identify a senior member of staff to liaise with the I CAN advisor to coordinate the study • Provide I CAN with school background information, e.g. % SEN, % EAL • Identify members of staff (teacher and TA pairs) and release them to have training to administer the screening tool and run the intervention (1 day's training required, twilight may be available) • Identify four children in Year 3 and four in Year 4 to be assessed on a range of measures, some administered by a speech and language therapist or SLT student • Ensure signed parental permission for the children to be assessed and take part in the study, including consent to photographs and filming • Carry out a SLC Progression Tool screen on each child before and after the intervention • Carry out a Learning behaviour checklist for each child before and after the intervention (training will be provided) • Run the intervention in the eight-week period identified (three sessions per week for 30–40 minutes) • Provide qualitative feedback about the intervention and the experience of running it. This will be in response to interviews and questionnaires • Provide planning and preparation time for the TA delivering the intervention • Ensure that there is a room available for the delivery of the intervention three times a week for eight weeks • Arrange a suitable quiet area for the SLT assessments to be done in Dec, Jan, March and June. Approximately 1 hour per child • Undertake not to inform the SLT doing the assessments whether the school has been running the intervention or not • Share any attainment or progress data they hold for the children who take part in the study • Where possible offer a venue for training • Provide resources as suggested in the intervention (these will be readily available school equipment and toys) • Support I CAN in communicating the results and impacts of the study locally and nationally	• Provide a named I CAN advisor to act as liaison for the study. This person will provide support and training for the intervention; assist with identifying children for the intervention; answer queries and support the evaluation • Provide a copy of the SLC Progression Tool for 5–6 year olds; 7–8 year olds; 9–10 year olds (which school can keep after the pilot) • Provide a copy of the YARC and any other assessment forms required for each child taking part in the study • Provide information sheets and consent forms for parent/carers of children taking part in the study • Provide training and support for staff administering the assessments and running the intervention • Share the findings of the children's assessments • Keep the head teacher informed of the progress of the project and share the final findings of the evaluation • Provide intervention guidelines, manuals and resources for schools. (There may be some resources schools will need to provide. These will typically include items that schools are likely to have already, e.g. balls, small beanbags) • Provide a one-off payment of £200 per setting towards the costs of taking part in the evaluation. Invoicing details will be provided at the start of the project • Provide guidance for SLT/SLT students on visiting schools and completing the assessments • Ensure SLT/SLT students have access to the required assessments and forms in order to complete baseline and follow-up testing	• Check that parental consent is obtained before administering any assessments • Liaise with the school to arrange a mutually convenient time for the assessments • Undertake all the assessments (ACE, YARC and the Child self-rating scale) within the agreed timescale and send all results to the named I CAN advisor • Comply with guidelines pertaining to the assessments. Ensure assessments are taken at baseline and follow up at agreed time periods (Dec, Jan, March, June/July) • Know and comply with child protection guidelines held within the relevant school • Where possible arrange to borrow copies of the relevant assessments from university libraries or local SLT departments. Forms will be provided for completion

Appendix 3: Active and waiting comparison schools

Area	School	Index of Multiple Deprivation Decile*	Number on roll	SEN	Pupil Premium	EAL
Somerset	A1	6	295	Above average	Well above average	In line with average
	A2	2	384	In line with average	Above average	Below average
	A3	1	630	Above average	Above average	Below average
	A4	8	417	Above average	Above average	Below average
	W1	2	231	Above average	Twice the average	Below average
	W2	1	303	Above average	Above average	Below average
	W3	1	151	Above average	Above average	Below average
Kirkby	A5	1	214	Above average	Above average	Below average
	A6	3	264	Above average	Above average	Below average
	A7	1	343	Well above average	Well above average	Well below average
	A8	1	204	Above average	Above average	Well below average
	W4	2	241	Well above average	Well above average	Well below average
	W5	1	479	Well above average	Well above average	Below average
	W6	2	237	Double national average	Double national average	Below average
	W7	1	401	Well above average	Well above average	Below average
York	A9	3	194	Well above average	Above average	Below average
	A10	2	429	Above average	Above average	In line with average
	W8	9	307	Below average	Below average	Below average
	W9	10	590	Below average	Below average	Below average
Leeds	A11	1	543	Below average	Above average	Above average
	W10	8	511	Below average	Below average	Below average

*On this scale 1 shows that an area is in the most deprived 10% of the country; 10 indicates the area is in the least deprived 10%

Appendix 4: Criteria for selection of children

Children to be included were those with delayed language skills likely to improve with a short term, intensive intervention, including:

● difficulties listening or paying attention

● poor vocabulary

● difficulties understanding language

● immature sentences

● difficulties explaining or describing events, information and instructions

● difficulties socialising/interacting with their peers.

Children to be excluded were those with:

● isolated speech difficulties/very unclear speech

● long term speech, language and communication needs, receiving specialist support

● specific language impairment

● Autistic Spectrum Disorder

● long term cognitive and learning difficulties

● complex needs.

Appendix 5: Child self-rating scale

To be completed with the Evaluation Assistant (EA).

Instructions for EA

1. Cut up the statements on p.4

2. Complete page 2 details.

3. Explain task to child – e.g. *I'm going to show you some sentences about your school. I can help you with reading them. You must decide what you think about each one and put it under the face [point to faces, p.3] that best shows what you feel about it.*

4. Support with reading as necessary, giving examples where needed to aid understanding of each item

5. Child does the activity as a sorting activity using the child's version p.3-4

6. EA makes note of child's response using table on p.2

Appendix 5: Child self-rating scale

Record any additional comments in the box below

Child's initials...School ....

Year group ....Date..

Completed by (name): ....

Record sheet for adult use:

Statement	Rating
1. When I go to school, I feel ...	
2. I can make friends with other children	
3. I answer the teacher's or TA's questions in class	
4. I can listen to class discussions and stories	
5. I ask when I don't know what to do in lessons	
6. I give lots of ideas in class	
7. I can share my ideas about class stories and discussions	
8. I can work with a partner	
9. I understand what my teacher or TA says in class	
10. I can work with a small group of children	
11. I ask when I don't understand something in lessons	

Do you want to tell me anything else?

Child self-rating scale

Years 3 and 4

Sort the following sentences to the face that matches what you think about it:
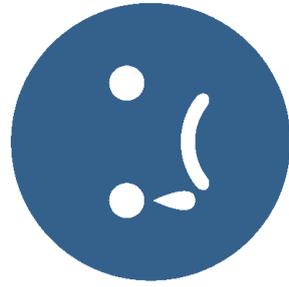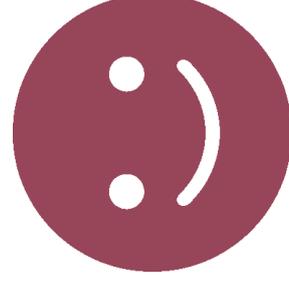
1   2   3   4   5

Sentences

1. When I go to school, I feel …

2. I can make friends with other children

3. I answer the teacher's or TA's questions in class

4. I can listen to class discussions and stories

5. I ask when I don't know what to do in lessons

6. I give lots of ideas in class

7. I can share my ideas about class stories and discussions

8. I can work with a partner

9. I understand what my teacher or TA says in class

10. I can work with a small group of children

11. I ask when I don't understand something in lessons

Appendix 6:
Parent questionnaire

Child's name..

Name of school ....

Date ....

I CAN, the children's communication charity, would like to know what you think about your child's communication and language skills. Please read carefully the questions below. Your answers will help I CAN to make sure the games and activities they develop work well.

1. Thinking back to your child's communication and language skills in January and comparing with how they are now, do you feel they are:

☐ Better   ☐ About the same   ☐ Worse

2. Thinking about some of the ways your child uses communication and language – is he/she better/the same/worse than in January.

Area	Better	Same	Worse
Listens when people talk to him/her			
Understands when you talk to him/her			
Says when s/he doesn't understand you			
Asks about unfamiliar words			
Happy to talk to family members			
Plays with other children and can take turns			
Talks about what he/she is interested in			
Talks about what they did at school			
Shares a book with you or someone they are close to and talks about it			

Please note any additional comments about these skills overleaf:

3. How much do you know about language and communication?

| 1 | 2 | 3 | 4 | 5 |

Nothing	Not much	A bit	Quite a lot	Loads

4. How important do you think good language and communication skills are for a 7–9 year old?

| 1 | 2 | 3 | 4 | 5 |

Not important at all	Not very important	A little important	Quite important	Very important

5. How many ways can you think of supporting your child's language and communication skills?
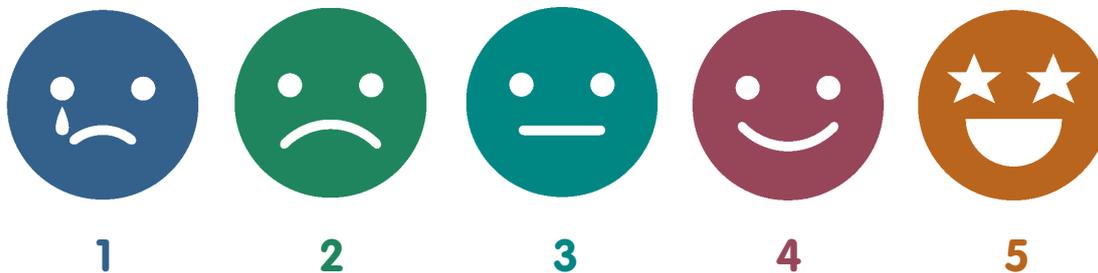
I don't know any	1 way	2 or 3 ways	4 or 5 ways	6 or more ways

Can you give some examples?

6. How confident do you feel about supporting your child's language and communication skills?
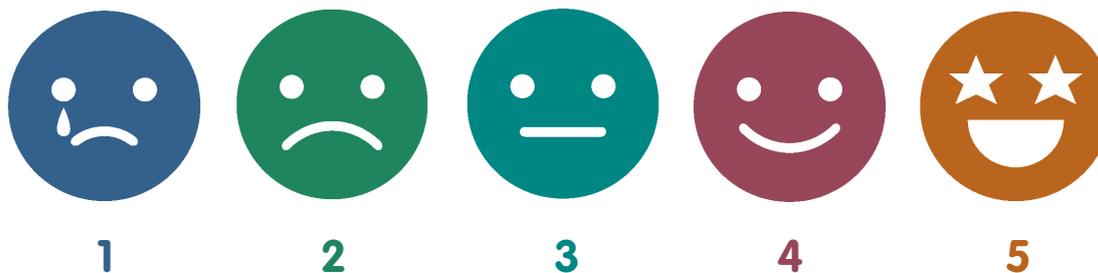
Not at all confident	Not very confident	A little confident	Quite confident	Very confident

7. Your child has been taking part in *Talk Boost KS2*. Do you think doing *Talk Boost KS2* has made a difference to your child's communication and language?

YES / NO

Comment:

Appendix 7: Learning behaviour checklist

The checklist should be completed by the class teacher or a teaching assistant who knows how the child is in class.

Use rating scales from:

1= Never; 2 = Rarely, even when supported; 3 = Sometimes; 4 = Frequently; 5 = All of the time

(please refer to the SLC Progression Tool for indication of age appropriate skills)

Child's initials:...School:..

Year group: ....Date:...

Completed by (name): .... T/TA (delete as applicable)

Statement	Rating	
Shows appropriate listening skills (sitting still, looking at the speaker, thinking about the same thing) most of the time, with very few reminders		
Makes simple relevant, related comments to class discussions		
Shares ideas on stories/discussions		
Uses communication skills to make friends and negotiate in activities		
Says when they don't understand, giving some indication of exactly what they haven't understood		

Knows what resources are needed for most class-based tasks and is able to organise himself/herself to complete tasks independently		
Joins in group activities		
Talks in small groups to peers: Makes helpful contributions, attempting different roles (e.g. questioner/chairperson/note-taker) when speaking in turn, in pairs and in small groups		
Talks in class to adults: Answers direct questions; responds to ideas with generally relevant comments and suggestions through sustained speaking turns		
Uses age-appropriate vocabulary when talking: Varies vocabulary choice according to audience and topic		
Uses narrative skills when telling a story: Includes clear structure and relevant detail; connects ideas and makes meaning clear in most situations		