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Training teachers to support pupils' listening in class: An evaluation using pupil questionnaires

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Abstract
Many children with speech, language and communication needs are educated in mainstream schools. Current policy and practice includes training for school staff in facilitating the development of speaking and listening skills. This study evaluates one such training package that focuses on supporting pupils' listening skills, delivered in a mainstream primary school. Perceived changes in teacher practice following training were evaluated using a questionnaire completed by pupils. Twenty-seven pupils completed a questionnaire two months prior to the training, immediately preceding the training and three months after the training. Pupils' responses at the three time points were compared. These suggest positive changes following the training. Pupils were more aware of the specific skills that they needed to practise to develop good listening. They also indicated that school staff were using a wider range of strategies to support listening activities in the classroom.

Keywords
speech language and communication needs, pupil voice, communication friendly environment, inclusion

1 Introduction

Speech, language and communication needs (SLCN) are one of the most common developmental difficulties experienced by young children. Lindsay et al. (2002) suggest that as many as 10% of children starting at school have ongoing difficulties with speech, language and communication, and most children with SLCN are educated in mainstream settings (Lindsay, 2007). In the UK,

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speech and language therapy services may not be available for all of these children (Bercow, 2008) and providing appropriate training for school staff to support these children is currently viewed as good practice (Lindsay et al., 2002).

1 Teacher knowledge

Given the number and range of children with SLCN in school, staff require the knowledge and skills to support these children in accessing the curriculum (Lindsay et al., 2005). However, a number of studies suggest that many teachers have little or no pre- or post-qualification training in speech and language difficulties (Dockrell and Lindsay, 2001; Mroz and Hall, 2003; Sadler, 2005; Mroz, 2006). Sadler (2005) also reported that teachers displayed low levels of confidence in their ability to meet the needs of pupils with SLCN.

Currently a range of training opportunities are offered to school staff from speech and language therapy and specialist advisory teaching services, to empower staff to facilitate pupils' access to the curriculum (Lindsay et al., 2002). Such training should include providing a good environment for communication (Gascoigne, 2006). Training provided for teachers in mainstream schools to support all children in the classroom, i.e. at a universal level, is likely to enable them to provide a better communication environment for children with SLCN. In the UK, such training is delivered by some speech and language therapy services and also by specialist advisory inclusion services provided by local education authorities. However, there is currently little evidence as to the effectiveness of such training, particularly in terms of the impact on teacher practice and on pupils' progress. It is, therefore, important to evaluate the delivery of this type of support.

There are a number of ways in which speaking and listening skills can be encouraged and developed within the classroom context. In the UK, one focus for in-service training for teachers has been the development of dialogic teaching in which classroom interaction and active involvement of pupils in discussion is facilitated (Alexander, 2008). Another strand is developing pupils' listening skills, to focus their attention on what is being said, and to develop their recall and understanding of spoken language. Rose (2009) has identified the importance of listening for children's academic development in the primary school years. Support for listening is, therefore, also likely to be of benefit for all children of primary school age, and particularly for children with SLCN.

2 Pupils' listening skills

This study reports on the evaluation of a training package, delivered by an inclusion advisory service for SLCN, to teachers in a mainstream primary school that focuses on supporting listening in all children in the classroom. In the context of this study, 'listening skills' refers to skills in:

- focus and attention on the speaker or resources the speaker is referring to;
- processing of the language used by the speaker to inform understanding;
- retention of information and instructions given by the speaker.

This is a broad view of what is entailed in listening, encompassing attention, understanding and memory. However, these are skills that children need in order to follow a teacher's directions and the spoken language used in classroom settings. Listening strategies that aim to address each of these component skills are presented in more detail in the method section. Jalongo (1995) describes the listening process as being active, one in which 'good listeners filter much of what they hear in order to concentrate on a message' (p. 13). Children may not fully understand what listening is.

Younger children are reported to believe that they just need to sit still and be quiet to get praise for good listening (McDevitt et al., 1990). These authors suggest children may not develop the concept that listening involves active understanding until after the age of seven and many not until they are nearly 10 years old, unless this is explicitly taught.

There are also pupils for whom attention, listening and/or comprehension is a particular area of difficulty. This might include children with language impairments (Hulme and Snowling, 2009), with learning disabilities / mental retardation (Pulsifer, 1996), with attention deficit and hyperactivity disorder (McInnes et al., 2003), with fluctuating or mild hearing loss (Bess et al., 1998) and with auditory processing disorder (Dawes et al., 2008). Background classroom noise has also been found to be detrimental to the performance of children with a range of special educational needs (Dockrell and Shield, 2006), and developing listening strategies may support children in managing their listening and attention against classroom noise. Training that enables school staff to facilitate the development of pupils' listening skills might, therefore, be of particular benefit for children presenting with a range of developmental difficulties.

3 Strategies to support listening

A number of strategies have been advocated to develop children's listening skills and to support listening and comprehension. Hamaguchi (2001) describes a metacognitive approach to developing listening. This includes being explicit about what behaviours children should adopt when listening, and about how these skills develop improved focus and understanding. This approach has been found to have a positive impact on listening skills (Owca et al., 2003; Goh and Taib, 2006). Instruction in visualization has been found to have beneficial effects for comprehension (Thompson and Rubin, 1996; Centre et al., 1999; Joffe et al., 2007).

The use of picture symbols and other visual contextual clues is considered good practice in supporting children with SLCN (e.g. Wellington and Wellington, 2002; Wellington and Stackhouse, this issue). Abbot and Lucey (2003) conducted a survey of special schools and found that 77% of them were using some form of visual cues. This was reported to have a good impact on both the auditory and reading comprehension of pupils, especially pupils who had some language delay. Hooker and Milner (2006) found that use of visual aids in the secondary classroom was effective for improvements in both comprehension and retention of information. Another element of good practice is for teachers to modify their language to suit the capabilities of their pupils. It is a challenge to find an acceptable level of language for talking to the whole class that is accessible for the least able and provides sufficient challenge for the most able. Palmer (2007) advocates keeping lesson introductions and instructions short and at a lower language level, following this with more verbal information and instructions for pupils who have good language skills, and using more visual or kinaesthetic means of extension for other members of the class.

4 Evaluation of training to school staff

Training delivered to teachers is usually evaluated by using questionnaire evaluation forms distributed to the participants at the end of the training received. These take different forms but often ask a series of scaled or open questions about the delivery, content and relevance of the training package and about the participant's knowledge and understanding of the topic. However, for training to be effective more is required than the teacher's perceived acquisition of knowledge. There must also be a change in practice that results in improvement in pupil performance or in their ability to access the educational curriculum. Guskey (2000) suggests that evaluation of educational

professional development in schools should include measurement of participants' reactions to training, participants' learning from the training, participants' use of the new knowledge and skills, and developments in pupils' outcomes. Joyce and Showers (1982) demonstrated that delivering training to teachers, however well that training was received, resulted in only about 5% change in practice unless it was followed up with some form of supported practice or measurement of success. They advocated use of coaches to support teachers with embedding new skills into practice. However, they found a revisit from the trainer to measure practice also resulted in an increased change in practice.

Wren (2003) discusses the range of methods used to evaluate professional development training and identifies shortfalls in identifying whether there has been a change in participants' knowledge of principles and strategies. Wren (2003) evaluated a programme in the area of SLCN by using a questionnaire pre- and post-training that presented scenarios of children in classroom situations. Participants answered questions in relation to the scenarios that assessed their knowledge in identifying the difficulties children with SLCN experience with the curriculum, in differentiating the curriculum, and in providing a positive communicative environment. This use of scenarios provides an indication of how course participants might respond to real-life situations. The findings suggested that participants' knowledge and confidence in working with children with SLCN had improved. Post-training responses indicated that changes were related to material within the programme. Wren (2003) concludes that this study had investigated change in what teachers know, what they believe and what they can do, but has not evaluated what teachers actually do.

By presenting questionnaires to pupils it may be possible to identify whether or not there is any perceived change in teachers' practice. Questionnaires have been used to collect pupil views. For example, pupils provided pre- and post-intervention data in schools undertaking changes as part of their involvement in the Healthy Schools Award (Moon et al., 1999) and participated in a survey on the nature and extent of bullying involving over 6,000 pupils (Whitney and Smith, 1993). If a questionnaire is being used to elicit the views of pupils about their own teacher then there is potential bias; for example, pupils might wish to answer positively to please their teacher. It would be important for the questionnaire to be presented in such a way that pupils feel able to express their opinions. Identifying differences in pupil's responses to the same questionnaire at different time points would also control for any such bias.

Where change is being measured during a research project there is the possibility that it occurs as a result of the measurement being made, as much as by the action being evaluated. Repeating the action in another setting without a repetition of the measurement may not, therefore, bring about similar change. This is sometimes known as the 'Hawthorne effect' after research conducted at 'Western Electric Hawthorne Plant' in the 1920s and 1930s (Cohen et al., 2007). An unexpected finding here was that constantly measuring the practice of individuals resulted in a change in behaviour without any other intervention. This has been replicated in other research. For example, Murray et al. (1998) found that adolescents' smoking behaviours were significantly affected by presenting repeated questionnaires to pupils. Self-reported smoking in schools was significantly lower than in schools where questionnaires had not been presented more than once. Measuring the effects of training of teachers may, therefore, result in a change in their behaviour that is additional to the result of the training itself. A further factor in measuring change is the possibility of an effect of repeating the measurement, practice and familiarization effects. This could also affect the reliability of any evaluation.

This study uses pupil questionnaires to evaluate whether there were any changes in teachers' practice following training aimed at supporting pupils listening skills in the classroom. It

specifically aims to address the question: Do pupils perceive any changes in teachers' practice following training, as evidenced in pupils' responses to questionnaires?

II Method

1 Design

A pupil questionnaire was presented at three time points. The first two time points were before school staff received training at an interval of two months to establish whether any change occurred when no training was given. This provided some control for the Hawthorne effect. The third time point was three months after training was delivered to the school.

2 Participants

The study took place in a junior school in a small village on the edge of a former mining area in the Midlands of England, with approximately 120 pupils and 11 staff. An information sheet and consent form was sent to parents/carers of all pupils in Years 3 to 6 (ages 7–11), inviting them to allow their child to participate in the study. All those children for whom parental consent was given attended a session in which the project was explained to them by an independent teaching assistant. They were asked to indicate whether they would like to be part of the project by ticking a 'smiley' or 'sad' face on a sheet and writing their name.

The participants were the 27 children whose parent/carer had returned a signed consent form, and who had assented to participate. They were aged between 7 years 10 months and 10 years 10 months. Ethical approval for the study was granted by the Research Ethics Committee of The University of Sheffield.

3 Materials

a Training: The training being evaluated is part of a package entitled 'Communication Friendly Environments'. It has been developed by a local-authority team for pupils with specific language impairment, together with the local speech and language therapy service. It was delivered by teachers within the inclusion advisory service. This package can be delivered as a whole day of training or a series of twilight sessions after school. It is interactive, with short sections of listening to the course leader, followed by delegate activities. The package includes an audit tool given to the school for staff to evaluate how 'communication friendly' the school is. A selection of ideas and strategies to support communication in the school is also provided during training. The package also offers the service of a 'coach' who will work with the school to draw up an action plan for improvement and to identify and source other training needs to support the development of a communication friendly environment. The school involved with the project did not have access to a coach until after the entire project was completed, so that the evaluation was of the training sessions alone.

The section of the package being evaluated focuses on the role of school staff in supporting children to listen and understand in the classroom, especially when listening as a whole class group. Visual materials were used throughout the training sessions, such as visual timetable and 'cue' cards, to demonstrate their usefulness. The first session presented information about theoretical aspects of listening material including Maslow's (1954) hierarchy of need, attention and focus, processing information or understanding, and memory. The second session focused on strategies to support listening, including:

- motivating pupils to attend and listen through reward systems and using interactive listening based activities;
- using a metacognitive approach such that pupils are explicitly made aware of the skills they need to use to listen and understand;
- awareness of the language level used by the speaker, to be appropriate for the group, and supported by clear facial expressions and gestures;
- use of visual support, including real objects, photos, pictures, symbols, interactive white-board images, demonstrations;
- teaching of visual symbols alongside new vocabulary and concepts so that understanding is embedded in both the auditory and visual memory.
- direct teaching of visualization skills and encouragement to use these, especially when listening to stories or extracts read from written text.

b Pupil questionnaire: A questionnaire was designed for pupils using software (Widgit, 2004) that allowed both words and symbols to be included. The use of symbols supported reading and understanding of the words, and enabled the questionnaire to be accessible to all pupils. For some questions, pupils made a selection from a number of options and ticked all potential answers that they thought answered the question. For example, the question 'When do you all have to listen?' has a choice of responses arranged randomly on the page, so that the layout did not suggest a hierarchy in their importance (see Figure 1). These questions also contained additional blank boxes for the pupils to record their own ideas, either by writing or by drawing (see Figure 2).

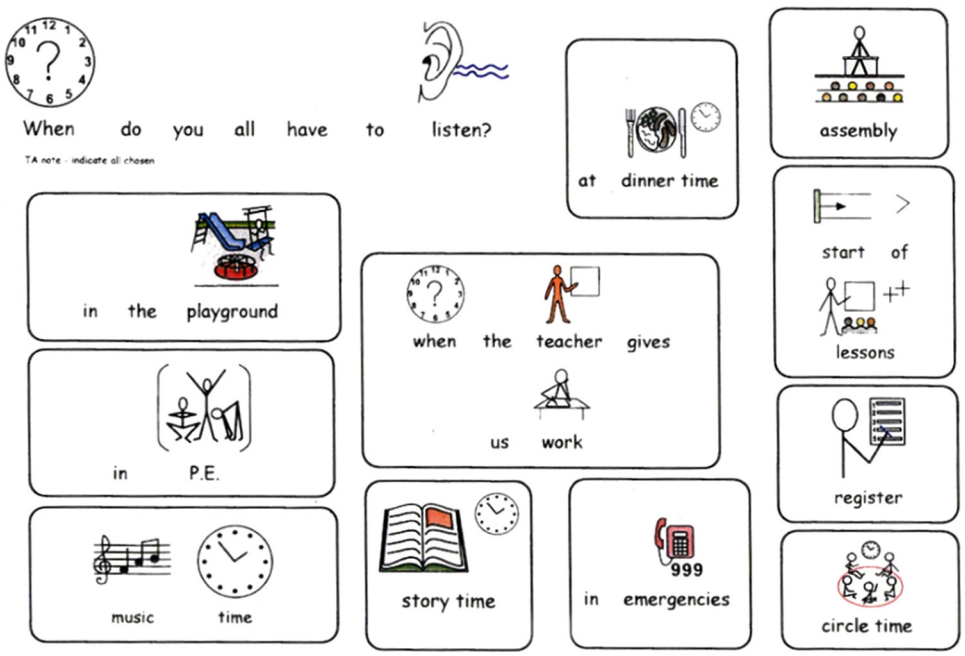

Figure 1 Example of a question with multiple responses

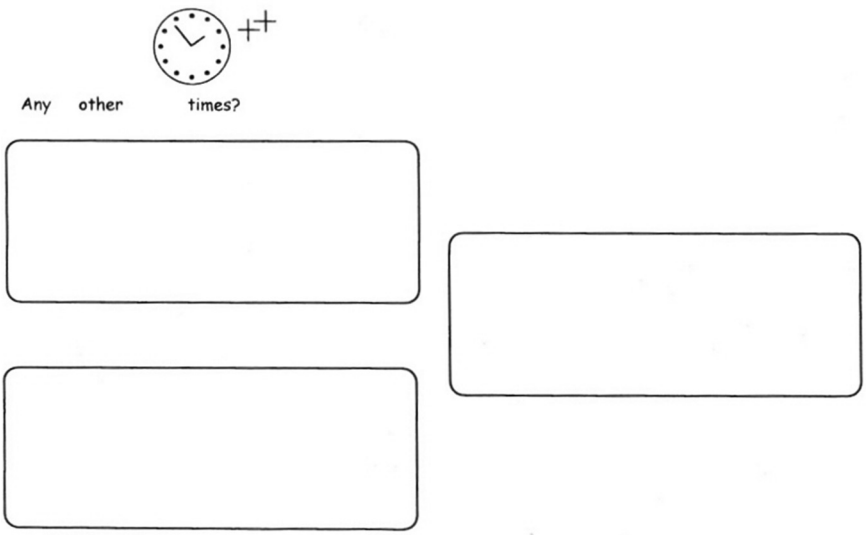

Figure 2 Example of a page where pupils were being asked for their own ideas

Another type of question asked pupils to select one scaled answer out of three (see Figure 3). Potential answers for these questions were presented in a straight line from left to right across the page to indicate that there was a hierarchy in the responses. A full list of all questions presented in the questionnaire is given in Appendix 1.

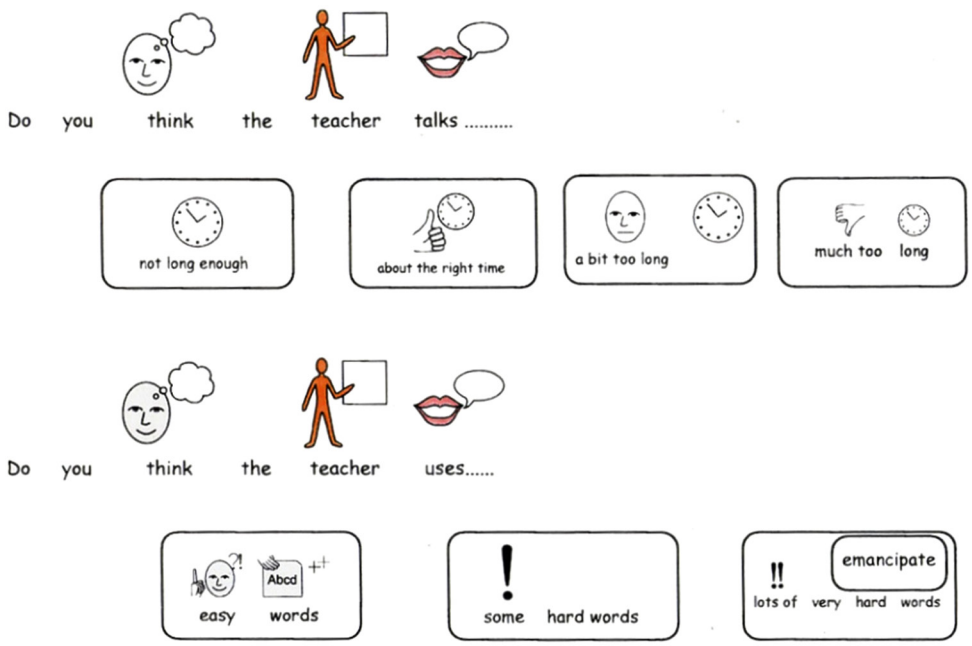

Figure 3 Example of two questions with scaled responses

4 Procedure

a Training: Training was presented over two sessions, each lasting for 90 minutes after school. Nine out of 11 staff attended both training sessions, and the remaining two staff attended one session each. Teachers also completed evaluations of the training, answering questions about the delivery and how much the participants considered they had learnt in the sessions. In addition, staff focus groups were held at each of the three evaluation time points, twice before training and once after training. This data is not being reported in this article; however, one or two comments from the staff focus group data are included in the discussion to support findings from the pupil questionnaires.

b Pupil questionnaire: The questionnaire was first trialled with four children aged 7–10 years who did not attend the school that was participating in the study. This trial was to evaluate whether the children interpreted the questions in the way they were intended, whether the questionnaire was overlong, and whether the children maintained attention to the questionnaire. All the children were able to answer the questions although one boy, aged 10, with reading difficulties required the questions to be read to him.

The questionnaire was administered twice (at time points 1 and 2, i.e. T1 and T2), at an interval of two months, prior to the training in order to control for the 'Hawthorne effect'. It was administered for a third time three months after the staff training (time point 3, i.e. T3). In order to allow pupils with poor reading skills or difficulties following instructions to take part, the questionnaire was administered in small groups of three or four pupils at a time by an independent teaching assistant. Use of an independent researcher should reduce any possible bias of pupil's responding in such a way as to please their own teachers. The teaching assistant was familiar to pupils as a frequent visitor to the school, and was a neutral agent with no vested interest in the school or in the project. In groups where one or more participants indicated they would like help to read the questions, the questions were read to the whole group one at a time. Pupils were seated in a configuration such that it was difficult for them to see each others' questionnaires and discussion was discouraged unless it was to clarify the meaning of the question or the instructions for completing the questionnaire. Where participants had expressed ideas in drawings, the meaning of these was either written on the drawing by the child, or annotated on the drawing, after brief discussion with the child, by the teaching assistant. In the few cases where there was no written indication of the meaning of the drawing, the first author consulted with colleagues and a consensus opinion of the drawing's meaning was reached. This consensus may not have accurately interpreted the child's drawing; however, this applied to only two of a total of 15 drawings. An example of a pupil's drawn responses is given in Appendix 2.

For the closed questions pupils chose one of 3 or 4 responses, and these ratings were converted into a numerical score for statistical analysis. For the multiple response questions, numbers of pupils selecting each response were counted and reported as the percentage of pupils selecting each response.

III Results

Consent was obtained for 27 pupils in the school to take part in the study. All these pupils completed the questionnaire at T1 but not all of them were in school on the days that the questionnaire was repeated at T2 and T3. Therefore, numbers of pupils responding at each time point varies. At T1, four pupils were in Year 3 (aged 7–8 years), 10 pupils in Year 4, 11 pupils in Year 5, and two pupils were in Year 6 (aged 10–11 years). The majority of pupils participating were, therefore, in

Table 1 Mean pupil ratings for closed questions (SD is given in parentheses)

	T1 (n = 27)	T2 (n = 24)	T3 (n = 25)
Do you like whole class listening?	0.50 (.659)	0.50 (.659)	0.92 (.654)
Do you think the teacher talks …?	1.33 (.565)	1.42 (.584)	1.58 (.504)
Do you think the teacher uses …?	0.96 (.464)	0.83 (.565)	1.13 (.448)
Are the children in your class good at listening?	0.96 (.464)	0.88 (.537)	1.25 (.532)

the middle age range in the school. It is not known whether any of the pupils participating were considered to have SLCN.

1 Closed questions

As there was a small range of scores, non-parametric analyses were applied. Friedman's test was used to see if there were any significant differences in pupils' ratings over the three time periods. Where a significant difference was found, post-hoc Wilcoxon signed-rank test was applied to identify between which time points change was significant. As multiple post-hoc analyses were carried out for each question, Boneferroni correction was applied. Any change was, therefore, only significant if the probability level was less than 0.0167.

a Do you like whole class listening?: Responses were numerically coded as follows: not at all = 0, ok = 1, a lot = 2. Table 1 shows the mean ratings obtained at each time point. There was a significant difference in ratings across time ($F = 18.182$, $p > .0001$). As there was no observable difference in mean rating between T1 and T2, the significant change results from higher ratings given by pupils at T3 than at T2 or T1, suggesting that they liked whole class listening more after the teacher training than before.

b Do you think the teacher talks not long enough, about right, a bit too long or much too long?: Responses were numerically coded as follows: not long enough = 3, about right = 2, a bit too long = 1, much too long = 0. No child rated the teacher as not talking for long enough at any of the three time points. Table 1 shows the mean ratings obtained at each time point, and there was a significant difference across time ($F = 9.3333$, $p = .008$). In order to establish at which time points change was occurring, post-hoc analyses were carried out. There was no significant change in ratings between T1 to T2 ($Z = 1.41$, $p = .157$) or between T2 to T3 ($Z = 2$, $p = .046$); however, there was significant change between T1 and T3 ($Z = 2.646$, $p = .008$). At the end of the study pupils rated teachers as talking for the right amount of time as compared to the start of the study; however, this was a gradual change over time and not as a direct result of the training to teachers.

c Do you think the teacher uses …?: Responses were numerically coded as follows: easy words = 2, some hard words = 1, lots of hard words = 0. Table 1 shows the mean ratings obtained at each time point, and there was a significant difference across time ($F = 10.571$, $p = .003$). As before post-hoc analyses were carried out. There was no significant change in these ratings between T1 to T2 ($Z = 1.732$, $p = .083$), and there was significant change in ratings between T2 to T3 ($Z = 2.646$, $p = .008$). Although there was no significant difference between ratings at T1 and T2, there was some observable variation in responses between time points, with a lower average rating given at T2 than T1. To confirm the effect of training, T1 and T3 ratings were compared and found to be not

significantly different once Boneferroni correction was applied ($Z = 2.000$, $p = .046$). Findings suggest that teachers were perceived to be using fewer hard words and more easier words following the training although this fell short of significance when comparing T1 data to T3 data.

d Are the children in your class good at listening?: Responses were numerically coded as follows: very good = 2, ok = 1, very bad = 0. Table 1 shows the mean ratings obtained at each time point, and there was a significant difference across time ($F = 14.889$, $p < .0001$). Post-hoc analyses showed there was no significant change in these ratings between T1 to T2 ($Z = 1.414$, $p = .157$), and there was significant change in ratings between T2 to T3 ($Z = 3$, $p = .003$). Although there was no significant difference between ratings as T1 and T2, there was again some observable variation in responses between time points, with a lower average rating given at T2 than T1. To confirm the effect of training, T1 and T3 ratings were compared and found to be significantly different ($Z = 2.646$, $p = .008$). Pupils perceived children in their class as being better at listening after the training for school staff.

2 Multiple response questions

a When do you all have to listen?: At T1, before the training, responses selected by the pupils show that they already know they have to listen in PE, when teacher gives work, story time, assembly, start of lessons, register, and at circle time (see Table 2). After the training at T3, more pupils recognize that they should also listen in the playground (24% change) and at music time (17% change). Additional responses that were given by two or more pupils are shown in Table 3.

Table 2 Number of pupils selecting each response for 'When do you all have to listen?' (percentages in parentheses)

	T1 (n = 27)	T2 (n = 24)	T3 (n = 25)	T2 to T3*
In the playground	12 (44)	10 (40)	16 (64)	24
In PE	25 (93)	24 (100)	25 (100)	0
Music time	23 (85)	20 (83)	25 (100)	17
Dinner time	17 (63)	18 (75)	20 (80)	5
When teacher gives us work	25 (93)	23 (96)	25 (100)	4
Story-time	27 (100)	24 (100)	25 (100)	0
In emergencies	22 (82)	21 (88)	25 (100)	12
Assembly	26 (96)	24 (100)	25 (100)	0
Start of lessons	26 (96)	24 (100)	25 (100)	0
Register	27 (100)	24 (100)	25 (100)	0
Circle time	25 (93)	23 (96)	25 (100)	4

Note: * Percentage change from T2 to T3

Table 3 Additional responses given by two or more pupils for 'When do you all have to listen?'

T1	T2	T3
• Waiting for bus / school bus ×5 • Home time ×3 • Swimming time ×2 • Teacher tells you to do something ×2 • In lessons ×2	• Working in groups / with partners ×2 • At home ×2	• Having a group discussion / working with partners ×3 • When we are on a trip ×4 • At home ×3

Table 4 Number of pupils selecting each response for 'Why do you all have to listen?' (percentages in parentheses)

	T1 (*n* = 27)	T2 (*n* = 24)	T3 (*n* = 25)	T2 to T3*
So we understand what to do	27 (100)	24 (100)	25 (100)	0
So we understand our work	27 (100)	24 (100)	25 (100)	0
So we don't get told off	22 (82)	16 (67)	11 (44)	23
To be polite	23 (85)	22 (92)	12 (48)	44
To stay safe	24 (89)	22 (92)	23 (92)	0
To learn	26 (92)	23 (96)	25 (100)	4

Note: * Percentage change from T2 to T3

b Why do you all have to listen?: At T1 again pupils are showing that they understand many of the situations in which they should listen including reasons such as 'so they understand' and 'to stay safe' (see Table 4). At T3 there is a marked decrease in children indicating that they have to listen so that they don't get told off (23% change) and in order to be polite (44% change). There were no additional responses given by pupils to this question.

c What do you think good listening is?: At T1 pupils demonstrate awareness of some aspects of good listening such as 'good sitting on a chair' and 'good looking' (see Table 5). There is some change in responses at T2 with pupils being aware that good listening includes 'good thinking' (58% change) and 'using your ears' (22% change), and there is a further increase in the number of children selecting 'good thinking' between T2 and T3 (23% change). At T3 children are also more aware that 'good sitting on the floor' is important (17% change). At each time point eight children consider smiling to be one aspect of good listening. Additional responses that were given by two or more pupils are shown in Table 6.

d What do some children do when they should be listening?: At T1 pupils are demonstrating awareness of some of the actions that children do when in a situation in which listening is

Table 5 Number of pupils selecting each response for 'What do you think good listening is?' (percentages in parentheses)

	T1 (*n* = 27)	T2 (*n* = 24)	T3 (*n* = 25)	T1 to T2*	T2 to T3**
Good sitting (floor)	22 (82)	20 (83)	25 (100)	1	17
Smiling	8 (30)	8 (33)	8 (32)	3	1
Good sitting (chair)	26 (96)	22 (92)	25 (100)	4	0
Good looking	27 (100)	24 (100)	25 (100)	0	0
Use your ears	21 (78)	24 (100)	25 (100)	22	0
Not talking	25 (93)	24 (100)	25 (100)	7	0
Good thinking	2 (7)	18 (75)	23 (92)	58	23

Note: * Percentage change from T1 to T2; ** Percentage change from T2 to T3

Table 6 Additional responses given by two or more pupils for 'What do you think good listening is?'

T2	T3
• don't fidget / not fiddling ×4	• not fidgeting / fiddling ×2 • focusing on teacher / ignoring silly people ×2

required (see Table 7). There is little observable change in this after the training. Additional responses that were given by two or more pupils are shown in Table 8.

e *What does the teacher do to help you to do good listening?*: At T1 pupils selected across the range of possible responses, with 'point' being the most often chosen (78%) (see Table 9). There is some change between T1 and T2 with more children selecting 'stand' and 'use pictures' (16% change each). There is further change between T2 and T3, with more pupils identifying that teachers were using symbols (35% change) and using real objects (13%). Additional responses that were given by two or more pupils are shown in Table 10.

Table 7 Number of pupils selecting each response for 'What do some children do when they should be listening?' (percentages in parentheses)

	T1 (*n* = 27)	T2 (*n* = 24)	T3 (*n* = 25)	T2 to T3*
Talk	19 (70)	18 (75)	21 (84)	9
Wriggle	10 (37)	10 (42)	12 (48)	6
Look out of the window	14 (52)	14 (58)	15 (60)	2
Daydream	12 (45)	11 (46)	11 (44)	2
Sleep	3 (11)	6 (25)	3 (12)	13
Fiddle with shoes	22 (82)	2 (18)	1 (17)	1
Fiddle with things	26 (96)	23 (96)	25 (100)	4
Shout out	18 (67)	18 (75)	19 (76)	1

Note: * Percentage change from T2 to T3

Table 8 Additional responses given by 2 or more pupils for 'What do some children do when they should be listening?'

T1	T2	T3
• disturb others ×2 • whispering ×10 • sign language ×4	• play with hair ×4 • whispering ×3 • sign language ×2	none

Table 9 Number of pupils selecting each response for 'What does the teacher do to help you to do good listening?' (percentages in parentheses)

	T1 (*n* = 27)	T2 (*n* = 24)	T3 (*n* = 25)	T1 to T2*	T2 to T3**
Use interactive whiteboard	13 (48)	10 (42)	13 (52)	–6	10
Use her face	16 (59)	16 (67)	17 (68)	8	1
Sit	19 (70)	18 (75)	20 (80)	5	5
Stand	16 (59)	18 (75)	19 (76)	16	1
Use pictures	16 (59)	18 (75)	21 (84)	16	9
Smile	13 (48)	12 (50)	14 (56)	2	6
Use real objects	14 (52)	15 (63)	19 (76)	9	13
Give stickers	13 (48)	13 (54)	16 (64)	6	10
Point	21 (78)	18 (75)	21 (84)	–3	9
Use symbols	5 (19)	5 (21)	14 (56)	3	35
Get cross	17 (63)	19 (79)	20 (80)	15	1
Laugh	5 (19)	4 (21)	5 (20)	2	–1

Note: * Percentage change from T1 to T2; ** Percentage change from T2 to T3

Table 10 Additional responses given by two or more pupils to 'What does the teacher do to help you to do good listening?'

T1	T2	T3
• give an example ×3	• more examples / show an example ×2	none

IV Discussion

1 Pre-training questionnaire responses

Before the school staff received the training, pupils demonstrated awareness of some aspects of listening behaviour. In response to the question 'what do you think good listening is?' almost all children selected the responses 'good sitting' and 'good looking'. These phrases are frequently used in school settings in the UK often with prompt cards (e.g. Twinkl, 2010). They are also aware of key times when they are required to listen and why they needed to listen, and this particularly related to classroom contexts.

Some changes were found to have taken place between the first two, pre-training questionnaires. This may demonstrate the Hawthorne effect (Cohen et al., 2007), whereby school staff changed their thinking about listening as a result of the focus groups that were held with staff at T1 and T2, and the delivery of the pupil questionnaires. In particular, the pupil responses to 'what do you think good listening is?' showed that at T1 only two pupils thought listening involved thinking. By the second pre-training questionnaire, this had risen to 18 pupils. That this change is a result of the T1 data collection is supported by comment from a member of staff during the T2 focus group session that occurred before the training.

> You know the questionnaires the children do, they were talking about them and it seemed the children knew very well what it meant to listen but not one of them put down that it links with thinking. It really came as something striking to me, so all the time now I say, 'I need you to look at me, I need you to listen, I need you to think.'

The teachers had not seen the questionnaires until the project was completed. However, they did hear the pupils talking about the questionnaires and may have questioned the pupils about what was in the questionnaires.

Across the two pre-training questionnaires, for the question 'what does the teacher do to help you do good listening?' there were increased responses for 'stand' and 'use pictures'. This was less marked than the change in number of responses of good thinking as discussed above. Again, it may be that heightened awareness in teachers following the T1 questionnaires and focus group had resulted in some perceived change in behaviour.

For other multiple response questions and for the closed response questions there were no significant changes between the two pre-training questionnaires. This suggests that practice or familiarization effects of repeating the questionnaires were negligible.

For the question 'when do you all have to listen' several pupils added the response 'waiting for the bus' or 'home time'. These responses are likely to be due to the rural nature of the school, where many pupils arrive by bus. At the end of each day they wait and have to listen carefully as the bus numbers are called. However, this was only noticeable in the responses to the first pre-training questionnaire.

2 Post-training questionnaire responses

There are a number of changes in pupils' responses between the pre- and post-training questionnaires. Pre- and post-training responses to 'do you like whole class listening' and 'are children in your class good at listening' showed significant differences that indicated that pupils liked whole class listening more and considered their peers to be better at listening. These changes in pupils' perception might reflect changes in teacher and/or pupil behaviour, or it might indicate that pupils were more aware of what good listening behaviour was, and this changed their judgment of their own and their peers' skills. There was also a significant difference in pupils' ratings for whether they perceived their teacher as talking too much. However, this was between T1 and T3 with non-significant increases in rating between T1 and T2 and between T2 and T3. Change was gradual and may not be a direct result of the training, but rather the increased focus on listening skills within school created by the use of the questionnaires and focus groups.

In response to 'do you think your teacher uses lots of hard words' there was significant change across time. However, this was only significant between T2 and T3 and not between T1 and T3. Lower means were obtained at T2 than T1. It is, therefore, unlikely that any perceived change in teacher behaviour was the result of training. Teachers' use of unfamiliar vocabulary (i.e. hard words) to introduce curricular vocabulary and to expand their pupil's word knowledge might be seen as desirable. However, if unfamiliar vocabulary was presented with appropriate support such that pupils were able to understand what is meant, the pupils might not perceive these words as being 'hard'.

For the question 'why do you all have to listen' before the training, many pupils responded 'to not get told off' and 'to be polite'. This is in accord with findings from McDevitt et al. (1990) that young children do not always understand the purpose of listening. After the training, numbers selecting these responses had fallen, suggesting that pupils had a better sense of why they should listen. More pupils were identifying the playground and music time as being contexts in which they should listen, in addition to other classroom and school situations.

One question related more directly to teachers' behaviour, asking what they did to help pupils to listen. The responses seem to indicate that there was some observable change. In particular, there was a big increase in pupils responding that teachers used symbols to help them to listen, there was also a small increase in responses that teachers used pictures and gave stickers. A more metacognitive approach to listening also appeared to have been implemented. As discussed above, at the first pre-training questionnaire few children identified that good thinking was an element of listening. This increased dramatically by the second pre-training questionnaire, for reasons outlined above. And there was a further increase in this post-training. Staff may now be making it explicit to children that thinking about the words being said is an essential skill for listening. One pupil appeared to be putting a visualization strategy into practice, providing the additional response 'making it real in your thinking' for the question 'what do you think good listening is?'

There are a number of possible confounds in interpreting changes in responses between the pre- and post-training questionnaires. Some teachers may already be using the strategies taught and, thus, have less room for growth. Pupils may have interpreted the questions in different ways from that which was intended. For example, they may have answered in terms of one particular lesson, or the most recent whole class experience, rather than their overall current experience in class. It is possible that there were other influences on the development of the teacher's practice over the course of this study. These might include school development plans, the dissemination of national curriculum materials and other policy and practice documentation, as well as other development activity. The use of the questionnaire twice before the training was presented provides a baseline to

indicate that less change was occurring over time before the training was delivered than occurred after the training. This should control the effects of the possible confounds discussed above.

Questionnaires were completed by a relatively small number of pupils, just over 20% of the school population. All pupils were invited to participate, and all pupils for whom consent was received were recruited to the study. The pupils were mostly from the middle two year groups within the school. It is not known whether any pupils with SLCN completed the questionnaire, and so no conclusion can be drawn about the perceptions of pupils with SLCN with regard to changes in teachers' behaviours or their own or their peers' listening skills.

Many of the questions reflect pupils' perceptions of teacher and pupil behaviour. Pupils will have experienced some teaching about listening from the teachers, following the training. Teachers were using cue cards to remind pupils about 'good looking', 'good sitting' and 'good thinking' and were using the term listening and being explicit about what this meant. The pupils are, therefore, less naive respondents at T3 than they were at T1 and T2, and this may affect their responses to some of the questions within the questionnaire. However, they would not be expected to know what strategies the teachers had been encouraged to use, and so responses to questions about the amount of time the teachers talked for, type of words used and what visual and other strategies were employed, for example, are less likely to be influenced by the pupils' increased awareness of what constitutes listening skills.

3 Implications

The questionnaires suggest that pupils have perceived some changes in teacher behaviour during the pre-training monitoring period as a result of the presentation of the first questionnaires to the pupils and possibly of the initial staff focus group. It may be that facilitating discussion on such a topic can have some effect on practice. These perceived changes continued post-training and other changes were also perceived. It is unclear whether perceived changes are the result of changes in practice or of pupils' raised awareness of what is involved in listening. However, pupils' views may provide a more reliable indication of what teachers actually do than teachers' own reports of changes in knowledge or practice. This provides a model for evaluation of training that extends the evaluation of teachers' knowledge post-training advocated by Wren (2003).

The evidence from the pupils in this study suggests that the training may have had an impact on teachers' practice and that such training of staff in school is an effective way of enabling staff in mainstream schools to provide better support for children's listening. Further evaluation would allow confirmation that this particular training package has an effect on teacher's practice in other contexts than that in which this study was carried out. This will include evaluation of the same training delivered in other schools and by other trainers. Follow-up after a longer period of time would also show which strategies are still in use in the classroom. A key step would be to directly measure pupil progress to see if changes in teacher behaviour also have an impact on pupil outcomes, particularly for those with SLCN, in order to ensure that this is an effective intervention.

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Appendix 1 Questions used in pupil questionnaire

1. When do you all have to listen?
   Multiple responses allowed: in the playground, in PE, music time, dinner time, when teachers give us work, story time, in emergency, assembly, start of lessons, register, circle time.
   Pupil's own responses invited.
2. Why do you all have to listen?
   Multiple responses allowed: so we understand what to do, so we understand our work, so we don't get told off, to be polite, to stay safe, to learn.
   Pupil's own responses invited.
3. Do you like whole class listening …
   Choice of one response: A lot; OK; Not at all.
4. Do you think the teacher talks …
   Choice of one response: Not long enough; About the right time; A bit too long; Much too long.
5. Do you think the teacher uses …
   Choice of one response: Easy words; Some hard words; Lots of very hard words.
6. Are the children in your class good at listening?
   Choice of one response: Very good; OK; Bad.

7. What do you think good listening is?
   Multiple responses allowed: good sitting (floor), smiling, good sitting (chair), good looking, use your ears, not talking, good thinking.
   Pupil's own responses invited.
8. What do some children do when they should be listening?
   Multiple responses allowed: talk, wriggle, look out of the window, day dream, sleep, fiddle with shoes, fiddle with things, shout out.
   Pupil's own responses invited.
9. What does the teacher do to help you to do good listening?
   Multiple responses allowed: use interactive whiteboard, use her face, sit, stand, use pictures, smile, use real objects, use stickers, point, use symbols, get cross, laugh.
   Pupil's own responses invited.

Appendix 2 Responses given in drawing to the question 'When do you all have to listen?'