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**Title: Perspectives of Pre-school children in England with speech and language needs in the development of evidence-based activities**

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**key words**

Young children

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**Abstract****Background**

The existing evidence is limited in terms of perspectives of pre-school children with speech and language needs, and their views on activities used to support their needs. This paper discusses a stream of work from the interdisciplinary research programme known as [‘Child Talk’, based in England, UK. The overall purpose of this work stream was to gain the perspectives of pre-school children aged 2 to 5 years 11 months, with speech and language needs, to use in the development of an evidence-based framework of activities.

**Methods**

Twenty-four pre-school children with a variety of needs from diverse backgrounds took part. An observational methodology was used to capture children’s experiences. Children were filmed during a series of sessions, with innovative head mounted cameras worn by the children and supported by researcher field notes. Framework analysis was used to analyse the data based on the body movement, vocalisation and visual attention of the children during these sessions.

**Results and Conclusions.**

Results included that children expressed enjoyment and engagement in the activities. The children expressed themselves and demonstrated their focus ‘multimodally’ through combinations of body language, vocalisation, and visual attention. These modalities were present across all contexts and children. It highlights the importance of encouraging participation in pre-school children and consequently this innovative piece of work has national and international importance.

## **Introduction and Background**

This article discusses one stream of work, the Children's Groups, drawn from ['Child Talk'] an inter-disciplinary research programme based in England, UK. 'Child Talk' aimed to develop an evidence-based framework to support the decision-making of speech and language therapists in England as they design and plan interventions appropriate to the needs of individual pre-school children aged 2 to 5 years 11 months with primary speech and language impairments, and their families. The need for early identification and effective intervention for these children continues to be a UK Government policy priority because of the link between children's early speech and language skills and their broader well-being and outcomes in later life (Scottish Gov, 2014; DfE, 2017; Bercow, 2018).

Traditionally, the perspectives of children regarding the services and care they receive were frequently provided by their parents, carers or indeed professionals. This practice has been challenged by international policy (World Health Organisation, 2008), and researchers and practitioners (Horne et al 2013; Coad & Hambly, 2011). More recently in the UK, professionals are now required to take account of children and young people's views (Gov.uk 2014a, Gov.uk 2014b). This places an obligation upon professionals, including speech and language therapists, to find ways of determining the views of the children and young people with whom they work. Better understanding of their perspectives enables professionals to ensure treatment is tailored to the individual's context which in turn should lead to improved patient engagement and thus to improved outcomes (Horne et al 2013).

Consequently, a growing number of studies have explored the views of children with developmental speech and language disorders regarding their everyday lives (McCormack et al, 2010, 2012), their preferred outcomes (Roulstone et al, 2012), their quality of life and wellbeing (Markham et al, 2009; Lyons & Roulstone, 2018) and a small number have focused specifically on children's views of speech and language therapy (SLT) services that they have received (Owen et al, 2004; Palikara et al, 2009; Merrick & Roulstone, 2011). Palikara et al (2009) used structured interviews with 54 young people who had been diagnosed with

specific language impairment and had received SLT during their school life. Of these, approximately half reported that they had received SLT at primary school whilst nine reported that they had received this support during their secondary schooling. Understandably since it was some time since they had received SLT, few provided more specific comments on the support they had received although some perceived it to be beneficial. Merrick & Roulstone (2011) reported on the discourses adopted by children with a range of speech, language and communication needs. Using the children's own drawings and illustrations of children in communication contexts, they conducted unstructured interviews with 11 children between 7 and 10 years of age. The children's discourses about SLT reflected a perception of the control and authority of the therapist; nonetheless, they regarded co-operation as a matter of their own choice. The children reported what they perceived they had learned in therapy sessions and saw therapists as helpful to their learning. The earlier study by Owen et al (2004) was conducted with 12 participants aged between 6 and 11 years. Children were presented with materials and activities that they had used in therapy, as well as illustrations of children in a variety of communication situations as a context for a semi-structured interview. These children enjoyed their SLT sessions although had ideas about changes that could be made to improve them. Although some understood them in terms of improving their speech, others saw them in terms of helping their general learning and performance in school and others were not at all clear about the purpose of the sessions.

What is worthy to note, is that all these studies of children's views of speech and language therapy services have all involved children already in school and whilst they provide useful insights into a child's perspectives on the therapy process, we cannot assume that the experiences of pre-school children receiving therapy will mirror those of their older counterparts. However, there are limited studies where the view of children under four years have been sought (McCormack 2010). Arguably, this may be because often treatment or therapy is delivered with parents/carers and within families. In this study, we believed that improving our understanding of a young child's perspective on therapy activities may facilitate explicit discussions about how therapy is best delivered. This paper consequently reports the findings of a study that explored pre-school (aged 2 to 4 years) children's experience of activities that are commonly used within SLT interventions in the UK.

This article aims to address two research questions:

**Research Questions:**

1. How do pre-school children aged 2 to 5 years 11 months experience the intervention activities used by speech and language therapists?
2. What factors influence whether or not pre-school children aged 2 to 5 years 11 months access, engage with and/or actively participate in approaches used by speech and language therapists?

**Methodology**

*Methods*

Methods used to explore the perspectives of older children and young people have included interviews and discussion-based methods (Einarsdóttir, 2007). However, these verbally based approaches may not be the most suitable for pre-school children since young children's level of language and cognition is likely to make it difficult for them to reflect on and communicate their experiences verbally (Garbarino and Stott, 1989; Boehm and Weimburg, 1997). Further, direct questioning is often unproductive with young children. Dockrell and Lindsay (2011) for example, point out that specific questions can be subject to response bias where children give the answer they perceive to be expected by the adult. For children who have speech and language impairments understanding the questions may also be problematic.

Nonetheless, it is possible to gain a perspective on children's experience of situations through a variety of ways. For example, Flewitt (2005) reported that three-year-old children expressed their views 'multimodally' through body language, facial expression and gaze as well as talk. Researchers have used methods such as arts-based and play-based methods (McLeod, 2011; Coad and Hambly, 2011) as well as observational and ethnographic approaches (McKechnie, 2000; Press et al, 2011). An observational ethnographic approach has also been used with older children who use alternative and augmentative methods of communication (AAC) (Wickenden, 2011).

Ethnographic qualitative approaches are commonly situated in real-life contexts and use participant observation techniques, which the researcher can use to be an unobtrusive part of the situation (McKechnie, 2000; Wickenden, 2011). In the ethnographic encounter, the

researcher is conscious of the different cultural contexts, but is seeking a 'dense description' of the event (Denzin and Lincoln, 2011). A common SLT context for pre-school children might be a clinic setting with a single therapist, a parent and the child. However, it was felt that participant observation in this context might be quite intrusive and pre-school environments were thus chosen.

For this study, we used a combination of play-based activities, field notes and use of film including the children wearing their own head cameras known as Kiddicams (See Figures 1 and 2). Special 'therapy-type' sessions were developed and set up in order to provide groups of pre-school children with experiences of SLT intervention activities. These groups did not offer tailored therapy as might have been offered in a real therapy group but were designed to reflect the range of interventions reported in practice based on survey data (Roulstone et al 2015). Activities were varied by using picture resources or real-world objects, familiar or unfamiliar items. The resources and activities selected were tailored to reflect each particular group members' developmental stage and abilities by speech and language therapists on the research team. The team believed by that the use of an ethnographic approach, novel to the context with pre-school children would enable the children's views to be communicated.

### *Participants*

We contacted two local children's centres and one nursery class and invited them to participate in the study. Table 1 gives an overview of the characteristics of the populations accessing the children's centres/nursery and living in the postcode for each setting. Sites were referred to as Sites 1 (Rural), 2 (Suburban) and 3 (Urban). Inclusion criteria required children to be aged between 2 years and 5 years 11 months but not currently receiving SLT. Early Years Practitioners identified children who fit the inclusion criteria and sought consent from parents or legal guardians and assent from the children at each session. Early Years Practitioners also helped ensure that each group was of similar ages, from a range of backgrounds and locations.

Each setting was asked to establish two groups of four children. Settings were encouraged to recruit children with a range of abilities, but with concerns about their speech and

language, although had not previously been seen by SLT, and to construct two groups with children who were known to each other and were of a similar ability level.

The sample across the three sites consisted of 24 children (14 Male; 10 female) between the ages of 2 to 5 years 11 months (median average of 37 months), in six groups. These six groups of four children represented a range of (parent/carer identified) cultures and ethnicities, details are given in Table 1.

[Insert Table 1 here]

#### *Intervention Activity Groups*

All children were seen for four sessions, with all groups being completed within a 6-week timescale. Groups were led by one of two experienced facilitators, supported by two research assistants. The first session with each group acted as a pilot to establish working patterns between the research team and setting staff, and to try out the data collection processes.

Using data from a previous survey about current practice with pre-school children (Roulstone et al 2015), the most commonly targeted goals and activity types were identified. These were then arranged into three programmes using SLT activities which targeted the following skills: (i) pre-language skills such as attention, listening, turn taking and symbolic play; (ii) early language such as following simple instructions, developing use of phrases and extending vocabulary; and (iii) phonological awareness skills. Each of the groups experienced all of the programmes over the duration of their four sessions.

Additionally, the group sessions were either highly structured with scheduled activities and a visual timetable, led by the speech and language therapist or unstructured groups following the child's lead, offering a number of activities for the children to choose from and move between, with the therapist moving with the child to implement intervention strategies through play. Activities were varied by using picture resources or real-world objects, familiar or unfamiliar items. The resources and activities selected were tailored to reflect each particular group members' developmental stage and abilities by speech and language therapists on the research team. Details of the activities are provided in Table 2.

[Insert Table 2 here]

#### *Data collection and organisation*



All sessions were video recorded with two cameras, located to capture the children's interaction within the room (See Figure 1).

INSERT FIGURE 1

At least one additional Kiddicam was worn by one of the children (See Figure 2). The intent was to generate video data from a 'child's eye view', to gain insight into the children's experiences, from their perspective. Field notes were also recorded by at least one of the researchers present to act as an observer.

INSERT FIGURE 2

Researchers also debriefed on the session as soon as the children had returned to their pre-school class. During the debrief researchers reflected on the activities and observations were made and recorded. Potential changes to improve data collection and interactions with the children were discussed, and how this would impact on the child's experiences of the session were hypothesised. The iterative reflections and amendments were then integrated into the next group.

More than 72 hours of videotaped material was collected through a combination of the two environmental cameras and the Kiddicams being used in each of the six groups and four sessions per-group. One member of the team (SH) edited all video files to synchronise the various video perspectives together so that viewers could watch the same event from multiple views. The synchronisation was achieved using Digital Replay System Software (DRS). DRS allows interrogation of the child's view-point by having both environmental perspectives as well as a view from the physical level of the child, providing insight into their head movement and what was in their line of sight.

### *Analysis*

Framework analysis was used, with preliminary categories generated by the research team following the initial group sessions and influenced by the background literature as reported in this paper. Data were made anonymous with pseudonyms generated by two of the research team members. A review of field notes and discussion amongst the team at this point focused on how the children were communicating their experiences of the activities and three categories were identified: body language, vocalisation and visual attention. These became the thematic framework which informed the rest of analysis although at all

points, researchers were open to novel categories (Smith and Firth 2011). Analytical processes involved:

1. Synchronised video files were watched and verified for every session. Flow charts segmented by time and activity were produced constructing a detailed written overview of the activities, child actions and behaviours and content themes (Ash 2007). Our field notes for each section were also added to the charts.
2. The first author (XX) purposely selected 10 varied sessions from across the full data set. The sessions were selected to represent a range of speech, language and communication activities, and across sites (rural, suburban, urban).
3. From the selected 10 films, two members of the team (XX & XX TO BE INSERTED) generated codes from one session of the video footage independently. A third team member (XX) verified coding and resolved any discrepancies. The three researchers then coded all the remaining nine films.
4. Once all data sets were coded and analysed, preliminary categories and themes were refined to form the final three categories of body language, vocalisation and visual attention.
5. The remaining films were then watched and matched to the three categories.

### *Ethics*

Approval was received from a National Research Ethics Service Committee (NRAS; reference number 11/SW/0228). Due to the age of the participating children it was not possible to obtain consent; however, assent was given in the form of the children agreeing to take part in any given activity and by parents or legal guardians in the form of written consent.

Children were encouraged to engage and to re-engage as necessary. However, if children continued to display a desire to stop, it was taken as a removal of assent and the child was looked after by a member of staff from the setting until the end of the session when they were collected by their parents/guardians.

Children were encouraged in turn to wear the Kiddicams and a game was instituted to support the process of wearing and turning on the camera. Cameras were removed or offered to other children where any child declined or showed discomfort.

## Findings

Framework analysis resulted in three preliminary categories of Body language, Vocalisations and Visual attention to examine the way that children expressed their perspectives. Additional dimensions were issues relating to the children's experiences of engagement and participation in SLT activities which were incorporated into each of the three categories.

### **Body Language** (See Table 3)

#### INSERT TABLE 3

Body language included any position or movement of the body that reflected something of the child's perspective, including the **position** and orientation of children's bodies, movements associated with general **body activity and movement** and **fidgiting**. Body language varied considerably as a direct response to the activities. Some children whose body language initially reflected reluctance or caution then became more relaxed in repeated sessions of the same activities or as they became more familiar with the adult facilitators. Others were able to join in confidently from the start:

*One of the adults asks Terry to take the picture off the visual timetable [that was introduced at the start of the session]. He takes a while to respond and then shuffles on his bottom to the timetable, stands up and takes the picture and gives it to the adult. He then puts his hand in his mouth and runs back to his seat - his facial expression is one of uncertainty/self-consciousness, head still slightly bent down (Field notes Site\_2 Session 1).*

Children's confidence and attitudes towards the activities were apparent in the various **positioning** of their bodies in relation to activities, other participants and researchers. For example, in one session musical instruments were introduced for the children to play. Most of the children in the group interacted with the instruments, suggesting enthusiasm and interest, but one particular child appeared to be 'deliberately not taking part' (*Field notes; Site1 Session 1*). This was displayed through him moving slightly backwards to be out of the circle, being 'reluctant to take part in the running' (*Field notes; Site\_1 Session 1*), taking a

few steps when encouraged but otherwise standing still or walking, and using reduced levels of eye contact with the adult facilitator.

Children expressed emotion more explicitly through *facial* expressions and *body movements* such as clapping their hands or bouncing on to their knees. The *size, strength and completeness* of children's **body movements** gave some indication of children's confidence in participating. Increases in the size and strength of movements were characteristic of children being confident and energetic during activities; this was more frequent where participation was simultaneous, rather than in turn taking activities, and within unstructured (child-led) sessions. Children often appeared to grow in confidence over time, demonstrated in increased clapping or running faster.

Common across all activities was the presence of **fidgiting**. These small movements usually of the hands and feet usually occurred when children were watching or listening to another person.

#### **Vocalisations** (See Table 4)

INSERT TABLE 4

Children's perspectives were evident through the **quality** of vocalisations (loudness; rate) the number and type of **child-initiated** vocalisations, children's **responses** to other vocalisations, and **non-verbal vocalisations**, such as giggling. Often children's vocalisations signalled the child's attempts at interaction and seeking relationship with the facilitators and went alongside making eye contact with that person. Table 4 displays the different aspects of vocalisation that were noted.

The **quality** of vocalisations, in terms of loudness and speed provided another indicator about children's confidence to participate. Children were initially quite quiet during structured SLT activities as highlighted below:

*When challenged to talk Christopher put his chin on his chest and did not look at the person asking him to speak. (Putting things in tube. Site\_2, Session 4: 00:18:09.884)*

*Saul speaks confidently and loudly 'a pig', 'oink oink', 'it's a chicken', 'ba ba', 'moos', cow' 'horsey horsey', 'ney ney'. (Animal masks. Site\_1 Session 3: 00:13:37.571).*

**Children initiated** vocalisation to ask questions, communicate their needs, to comment and to ask to participate. For example, children named objects that they wished to play with, or if they needed help adjusting their Kiddicam, attracted the facilitators by vocalising. As children became more familiar with activities and with the speech and language therapist, they **responded more quickly**. For example, some children gently mouthed the words of the introductory song, which was sung each week (the 'Hello Song'). They wished to participate in the song but seemed unsure or unconfident. Other children sang along as highlighted below;

*All children sat quietly while the speech and language therapist sang to each group member by name as part of the hello song, none of the children joined in with the words or actions. John asked 'what's that there' about something behind Lydia. Saul then joined in with the actions for the song when the song moved on to singing 'hello' for the adults present. Giles joined in with singing 'hello' to the speech and language therapist, the last person being sung to. He sang quite loudly (Site\_1 Session 3: 00.05:04:881)*

*Children also expressed their feelings and needs and also commented on their experiences through **nonverbal vocalisations**. One of the children (Ted) had his 'Woody' toy with him in the group. Ted used Woody to draw attention and used Woody to indicate that he wanted to select a toy from the bag. Christopher drew a plastic monkey from the bag and Ted made the monkey noise. Ted went on to make the noises and movements of the animals as they were drawn. (Site\_2 Session 1: 00:39:54.242)*

*All the children readily held hands with adults and formed a circle. They all looked up at the adults round the circle. All the children were smiling and rocking in and out, several children made small noises as they swung their arms. (Site\_2 Session 4: 01:13:14.070)*

**Visual Attention** (See Table 5)

INSERT TABLE 5

**Visual attention** refers to the direction and movement of children's gaze. This included children **watching the adults** and **other children, making eye contact**, and **focusing on objects**. Observation of children's visual gaze was assisted by analysing video footage from the Kiddicam.

Children spent a lot of time **watching the facilitator** particularly in the structured groups. Their attention suggested purposeful listening, indicating an interest in what she was *saying and doing*. The focus of attention switched to **objects** that were involved in the activity when mentioned or gestured to by the adults. For example, during the activity where children were listening to animal noises, children's visual attention shifted between soft toy animals matching the noises and the therapist's face.

Attention shifting between faces and objects was observed during unstructured group sessions where children self-selected the activities and played with different objects independently. This switching of attention suggested that children sought the therapists' affirmation, reassurance and shared participation in play.

The children **watched each other** during turn taking activities in both structured and unstructured groups. Children would also reposition themselves to better watch another child as they played and interacted with a facilitator or therapist. Children would glance around the room to *monitor* what other children were doing. In unstructured groups children who were curious about the activities of other children would stare at the other children. It appeared that the child observing was seeking a cue from the players to indicate they could join them. If this was forthcoming they would move to play with the same toy or copy what another child was doing.

Sometimes children's visual attention focused on a specific activity and at other times children would scan around the room, as if monitoring if anything else of interest was occurring. Many children would also look away from the activity leading the facilitator to attempt to regain their focus

*All attentive, except for John ...distracted by other things in room.*

*(Magic, Site\_1 Session 3: 00:03:09.521)*

*John was momentarily distracted by someone off camera, but refocused on his drawing as the other children continued to chatter to the therapist about their colouring in. (Site\_1 Session 3: 00:33:56.209)*

## **Discussion**

Overall, the pre-school children appeared to enjoy the activities and the majority were engaged in all the activities. Children tended to be more relaxed and confident and expressed enjoyment through smiling and laughter when participating in activities simultaneously with other children, compared with turn taking activities, although as the turn taking activities became more familiar to children, children's confidence and enjoyment of these increased. We have set out the discussion as two main issues; firstly the factors that influenced the children's participation and secondly the issues relating to the three categories of body language, vocalisations and visual attention.

### ***Factors influencing participation***

Factors which influenced the children's participation which resulted in increased confidence, enjoyment and engagement included familiarity with activities and therapists. Some children who appeared reluctant or cautious subsequently became more relaxed in repeated sessions of the same activities or as they became more familiar with the adult facilitators. Type of activity also impacted on participation and was evident through increased initiated vocalisations and a wider range of body language during activities. In these observations, children participated simultaneously, such as in unstructured play, compared to structured activities where the child had to wait their turn to play an instrument or choose a toy. Examples of behaviours indicating that the children were more relaxed included giggling and laughing, clapping hands together and running around the room. On occasions, more cautious children appeared to draw confidence and cues from other children who were already engaged in an activity or making vocalisations.

### ***Factors influencing categories of body language, vocalisations and visual attention***

Flewitt (2005) suggested that views of children were 'multimodal' and identified four categories; body language, facial expression, gaze and talk. The work presented herein

defined three categories of body language, vocalisations and visual attention. These clearly overlap with the work of Flewitt (2005), and provide a useful framework for observing and interpreting how children were experiencing the activities. Observation identified a range of emotions such as boredom and excitement. Using the categories identified as a prompt or checklist could support the explicit reflection on children's experiences of SLT sessions. One would expect a Speech and Language Therapist to be taking account of these aspects of children's behaviour all the time as part of their monitoring of how the child is engaging with a session. This study helped to focus primarily on those observations, making them explicit as a way of understanding intervention from a child's perspective. Further, this could support discussion with parents about the signs of their children's engagement with activities at home. This is particularly important where parents are trying to implement SLT strategies in the everyday interactions with their children.

Data revealed the dynamic nature of children's perspectives and factors that may influence the levels of interaction ('ebb and flow') observed in the children throughout the series of therapy sessions. There was a suggestion in our data that in the unstructured (child led) activities, children's body language showed relaxed movements and there was much louder vocalisation suggesting that the children were more confident in these contexts. We also noted there was less turn taking, active listening, attending and more interruptions, fidgeting, and watching of other children compared to structured groups. Conversely, in structured groups, we observed more active listening and watching what the adult was doing and saying. The familiarity of the activity was also influential, leading to body language and vocalisations associated with confidence and willingness to engage with the activity. However, we did not quantitatively record this, for example using simple counts, so to explore this would require further research.

A challenge the team considered was the potential of unequal power relationships. The young children could have perceived the adult researchers as authority figures or 'strangers' and as a consequence been wary, so strategies were planned to minimise the power differential (Punch, 2002; Robinson & Kellett, 2004). These were such things as using forenames for the researchers and ensuring they were physically at the same level as the children including when playing on the floor. Two other challenges around consent and engagement in the activities were also considered in this research. The team had consent



from parents and adult guardians prior to the event but aimed to ensure that the young children were empowered in agreeing to take part. The study was conducted in the context of play groups and environments which were well known to the children and the team helped them feel comfortable in especially in the settling down, welcome songs and explanations. The team considered the issue of potential coercion in terms of engagement with the activities. Managing the group was a fine balance between wanting the children to engage with the activities and balancing it with letting them sit out and respecting their desire not to participate.

Observations regularly picked up the children's fidgeting (Baker & Cantwell, 1982; Lindsay & Dockrell, 2000). A common interpretation of this might be that this signalled a lack of attention; however the extensive analysis of the video concluded that the children were listening and engaged while fidgeting. The embodied cognition literature emphasises the central role the body plays in mediating cognition (Wilson, 2002). In this context one potentially fruitful way to view fidgeting is as an "embodiment" of the act of sustaining attention. Fidgeting may also help individuals sustain attention by increasing physiological change and arousal (Farley, Risko & Kingstone, 2013). Sarver et al (2005) purport that slight physical movements "wake up" the nervous system, thus improving cognitive performance in children with attention deficit hyperactivity disorder (ADHD). Whilst our study was a small group of diverse young children with varying speech and language ability, our observation of children's fidgeting apparently supporting prolonged engagement, would support some of the findings of Sarver et al (2005). Kofler et al's (2016) meta-analytic review suggests that gross motor activity is influenced by environmental factors in general, and cognitive/executive functioning demands in particular, but the group of children under investigation in the current study require more detailed study. In our activity groups we built in a range of sitting and movement-based activities; no efforts were directly made to stop children fidgeting during any activity.

We believe that the methods we used facilitated participation of the pre-school children. Using participant observation to explore children's experience of activities resulted in rich descriptions of the children's actual behaviours and the way that those behaviours signalled the child's engagement with the activities. This kind of observation differs from the diagnostic and assessment made in SLT, where the purpose is to identify the children's

language and communications interactions and evaluate them relative to developmental norms and diagnostic criteria. The approach also differs from quantitative observation methods where a priori schema is used to guide and quantify observations. However, using ethnographic qualitative approaches with a participant observation approach was time-consuming and required skills in detailing and interpreting the children's behaviours drawn from the many hours of video material. Furthermore, in using such approaches we are aware that 'success' also depends very much on the skill set and resources of the individual/team of researchers. It is worth noting in this study we were able to use the grant to support excellent resources and a large team of national experts.

The study has investigated children's views using observation and interpretation of children's body language, attention and vocalisations. This was a response to the ongoing challenge of establishing the views of children who are unable to fully express themselves through spoken language. We believe that the approach proved a useful method for understanding pre-school children's engagement with different activities, and their confidence. It also provides some understanding of children's enjoyment of activities, particularly at the extremes of emotions. However, it was harder for researchers to interpret children's experiences where movement and expression was minimal and there is a limit to the understanding of children's 'experience' that can be achieved through observation. Nonetheless, the method was particularly useful for understanding children's engagement with, and enjoyment of activities over time.

## **Conclusion**

Being able to demonstrate that the views, preferences and perspectives of children receiving SLT have been taken into account is now a requirement of practice. This is not only from a moral and legal perspective but also part of the evidence-based practice paradigm. With respect to pre-school children this is a challenge since the commonly used verbal techniques are less suited to this age group. The approaches described and discussed in this article have potential for practitioners in any field engaging with pre-school children, as well as researchers wanting to investigate children's perspectives on or responses to therapy activities. This important national study suggests that in general, children engage in and enjoy a range of different SLT activities. It highlights the importance of familiarity in

encouraging confidence and participation and suggests that activity structure may be an important consideration for SLT practice. This article shares a real-life example of eliciting young children's views using a flexible approach in order to encourage active participation and highlights the importance of encouraging this groups participation. Consequently, this innovative piece of work has national and international importance in child-focused settings.

### **Key Messages**

- The evidence is limited in terms of perspectives of pre-school children with speech and language needs, and their views on activities used to support their needs.
- The innovative methods used helped the research team to explore/observe and interpret the children's feelings, which were analysed
- The study has application for all professionals at all levels of training and career who work with pre-school children.
- Use of the developed framework could help all professionals explore a child's perspective on the process of intervention.

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**Table 1:** Participant demographics by site

Site	Social Grade*	Ethnic Groups**	Deprivation‡	Pseudonym	Age (months)	Gender	Ethnicity	Sole/birth order
1	33.9% Upper Middle Class	94.4% White English	52.7% No deprivation	Sara	36	Female	White British	Sole
				John	36	Male	White British	Sole
				Saul	36	Male	White British	3/3
				Giles	36	Male	White British	2/2
				Ella	36	Female	White British	2/2
				Charlotte	48	Female	White British	3/3
				Sally	48	Female	White British	2/2
				Rich	48	Male	White British	2/3
				<b>Median</b>	<b>36</b>	<b>4M / 4F</b>		
2	36.9% Working Class	87.5% White English	34.0% No deprivation	Harry	39	Male	White British	4/4
				Ted	41	Male	White British	2/3
				Jade	28	Female	White British	Sole
				Christopher	26	Male	White British	2/2
				Natasha	26	Female	White British	3/3
				Michael	29	Male	White British	1/2
				Terry	41	Male	White British	2/3
				Malcolm	44	Male	White British	2/3
				<b>Median</b>	<b>34</b>	<b>6M / 2F</b>		
3	40.6% Working Class	37.7% White English	23.6% No deprivation	Alton	30	Male	Black Caribbean, British	1/2
				Lilly-Anne	30	Female	White British	2/2
				Shakera	40	Female	Black African, Somali	Sole
				Jazz	47	Female	Bangladeshi, British	Sole
				Tajo	34	Male	Black Caribbean, British	Sole
				Bow	38	Female	White British	Sole
				Arend	45	Male	Asian, British	2/2
				Rob	45	Male	Asian, British	3/3

				<b>Median</b>	<b>39</b>	<b>4M / 4F</b>		
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\* = The social grade is the socio-economic classification used by the Market Research and Marketing Industries, most often in the analysis of spending habits and consumer attitudes. Originally developed by the National Readership Survey to classify their readership, they are used by many organisations and companies for market research. The figure shown is the largest category of social grade represented in the zip code where the children were recruited.

\*\* = The figure shown is the percentage of the largest ethnic group in the zip code of the area where the children were recruited.

¥ = The dimensions of deprivation used to classify households are indicators based on four selected characteristics. A household is deprived in a dimension if they meet one or more of the following conditions: 1) Employment Where any member of a household, who is not a full-time student, is either unemployed or long-term sick 2) Education No person in the household has at least level 2 education, and no person aged 16-18 is a full time student 3) Health & disability Any person in the household that has general health that is 'bad' or 'very bad', or has a long-term health problem 4) Housing The household's accommodation is either overcrowded, with an occupancy rating -1 or less, or is in a shared dwelling, or has no central heating. A household is deemed as being deprived in none, or one to four of these dimensions in any combination. The figure shown is the percentage of the largest deprivation category in the zip code of the area where the children were recruited.

**Table 2:** Details of the children’s groups including aim of intervention and examples of resources

<b>Children’s groups</b>	<b>Purpose of the intervention</b>	<b>Example games/resources</b>	<b>Task variables</b>
Communication skills group (age 2–3 years)	Good looking/attending, good listening, good turn taking, understanding emotions, pretend play	Musical instruments, Simon Says, Animal toys and their noises, bubbles, parachute game, dolly and food/care items, pass the ball	Structured/unstructured Familiar/unfamiliar objects, familiar/unfamiliar pictures
Language skills group (age 3–4 years)	Following child’s lead in play, waiting, expanding and adding words, naming items, Derbyshire language scheme, introduce ‘who’ and ‘where’	Language levels: a selection of ‘characters’- teddy, doll, animals, positional items e.g. toy furniture, and objects e.g. cup, plate, toy food, baby’s bottle, brush, sponge  Who/where /what games, using stories, dressing up items, professions and objects they use, animals and locations they live	familiar/unfamiliar objects, familiar/unfamiliar pictures, culturally relevant (multi-ethnicities)
Speech sound group (age 4–5 years)	Rhyme, syllable clapping, individual sound identification, sound identification in words, introduction to blending	Sound lotto, Rhyming fruit salad, nonsense rhyme monster, posting game, syllable lily pads	Structured/unstructured, familiar/unfamiliar objects, familiar/unfamiliar pictures, culturally relevant (multi-ethnicities)

**Table 3:** Body language categories identified as communications of the perspectives of preschool children.

	<b>Categories</b>	<b>Sub Categories</b>
<b>THEME</b> <b>Body Language</b>	Body position	Orientation Openness of body Extensions Proximity to object, group or activity
	Emotional expression	Facial expressions Whole body movements
	Body activity / movement	Size of movement Strength of movement Completion of movement
	Fidgeting	Handling objects Repetitive movements

**Table 4:** Vocalisation theme used to explore preschool children’s’ perspective of speech and language therapy activities.

<b>THEME</b> <b>Vocalisations</b>	Categories	Sub Categories
	<b>Quality</b>	Loudness Speed
	<b>Child initiated</b>	Questions Communicating wants and needs Commenting Declaring ability
	<b>Responses to SLT or facilitator</b>	Completeness of response Repetitions Expressing support
	<b>Non-verbal</b>	Expressing emotion Expressing needs Commenting

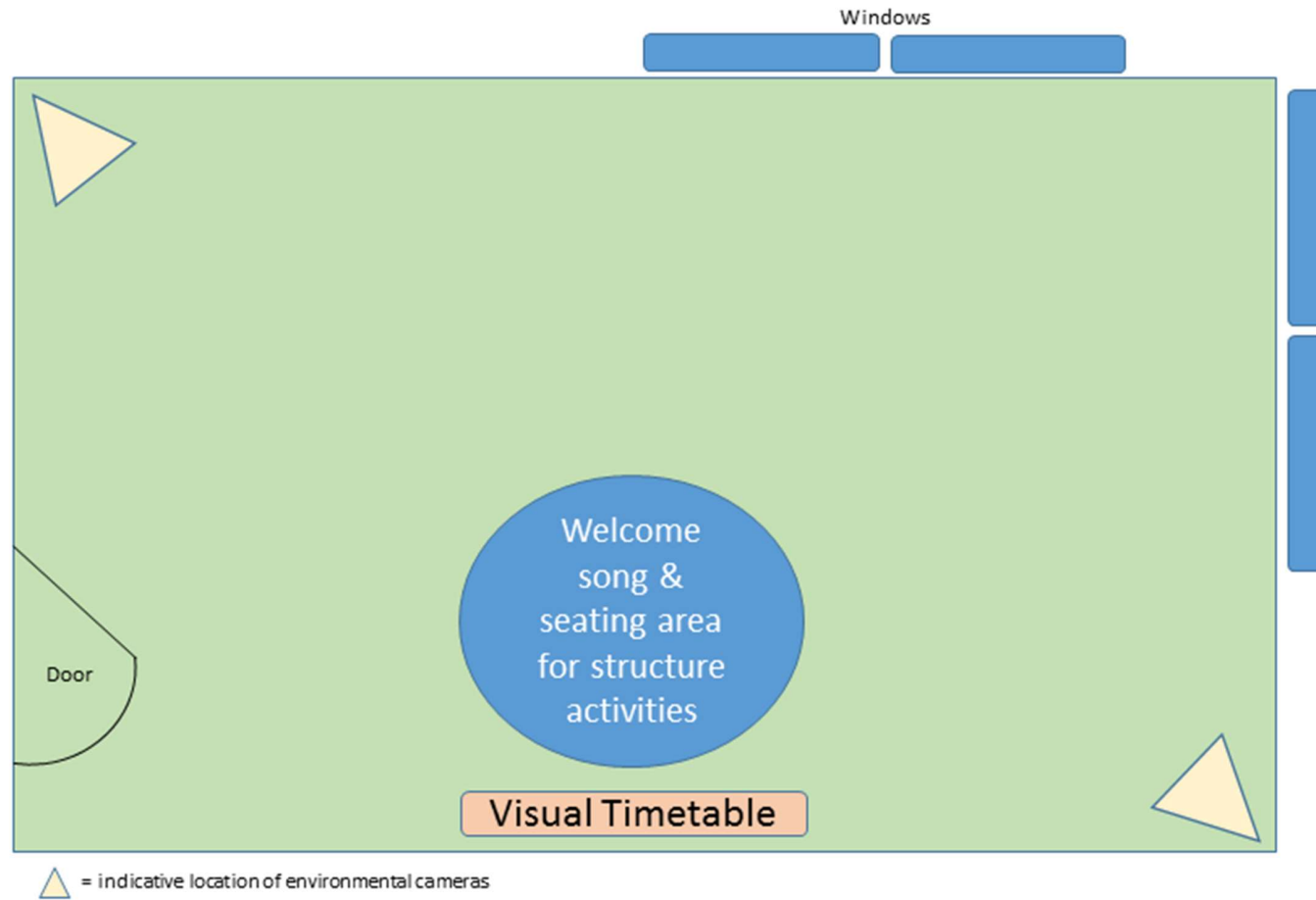
**Table 5:** Visual attention themes used to explore preschool children’s’ perspective of speech and language therapy activities.

THEME Visual attention	Categories	Sub Categories
	Watching SLT	Watching talking Watching movements
	Making eye contact	During activities Before speaking
	Watching other children	Turn taking General monitoring
	Focus on objects	
	Looking away from activity	Looking down General monitoring At another specific object or activity
	Switching attention	Between eye-contact and object Between another and own activity



**FIGURES**

**Figure 1** Environmental set up



**Figure 2:** Wide-angle head-mounted kiddie cam

