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Listening to children with communication impairment talking through their drawings

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Abstract

Including children as research participants is an important new direction in early childhood research. However, it is rare for such studies to include the voices of children with significant communication impairment. This paper suggests that drawing may be an appropriate non-verbal method for 'listening' to these children's ideas and recording their perspectives. Three areas of inquiry are reviewed: (1) the use of drawings as a method of respectfully listening to children; (2) approaches to the analysis of children's drawings, and (3) the analysis of drawings completed by children with communication impairment. We identify six aspects of children's drawings – facial expressions, accentuation of body features (e.g., mouth and ears), portrayal of talking/listening, colours used, conversational partners, and sense of self – that are potentially pertinent for children with communication impairment.

Researchers in the field of early childhood education are increasingly aware of the need to ensure that children are given a voice in matters that concern them (Cremin and Slatter, 2004; Dockett and Perry, 2005, 2007; Leonard, 2006). New methodologies such as the Mosaic Approach (Clark and Moss, 2001) and Draw-and-Tell conversations (Driessnack, 2006) have been developed as a means of including children in the research process. Although researchers have been successful in establishing new ways to seek the views of children and young people, it appears that little progress has been made when it comes to researching with children who have significant communication impairments (Morris, 2003; Watson, 2000). Studies of childhood impairment or disability have typically focused on education and service provision, rather than attempting to directly obtain the experiences and views from the children themselves (Watson, 2000). Furthermore, in most of these research methodologies, researchers have typically sought children's views in the form of questions or conversations that rely on verbal interaction. For children with communication impairments, verbally conveying their thoughts and ideas can be a difficult task and consequently, their experiences are often absent from the research literature. It is therefore important to explore alternate methods of 'talking' with these children. Drawing offers an appropriate, child-friendly method for doing so. Drawing also provides children with the opportunity to communicate in a familiar and nonverbal manner, enabling thoughts and feelings to be expressed visually (Brooks, 2005; Malchiodi, 1998). However, despite having a long tradition in the fields of education, psychiatry, and psychology, this method has seldom been used to explore the views of children with communication impairments.

In light of the above, this paper will discuss three areas of research: (1) methods of listening to children and respectfully including them in the research process; (2) approaches to the

analysis of children's drawings, and (3) providing a 'voice' for children with communication impairment by listening to their drawings.

Listening to Children

Providing children with the opportunity to participate and be heard is considered to be a human right. Specifically, Article 12 of *United Nations Convention on the Rights of the Child (UNCRC)* states that:

> Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child (UNICEF, 1989: 4).

Traditionally, investigations into children's lives have treated the child as a passive object for the study, relying on adult observations and accounts rather than collaborating with the child (Driessnack, 2006; Mahon, Glendinning, Clarke and Craig, 1996). Rather than research being *with* or *for* the child, it has been *on* the child (Hood, Kelley and Mayall, 1996; Leonard, 2006) and as such, has become a 'process that is devised by adults, applied to children with results interpreted by adults' (Birbeck and Drummond, 2005: 582). In some cases, children's lives have been 'edited, reformulated or truncated' (Roberts, 2000: 229) to suit adult agendas. Since the research world is largely the province of adults, at times children's perspectives have been conceptualised as incompetent, unreliable and incomplete – incapable of thinking like adults and giving accurate information, even concerning their own lives (Cremin and Slatter, 2004; Dockett and Perry, 2007; John, 2007). As Dockett and Perry (2005: 508) articulate, '...rarely are young children recognised as holders of expert knowledge, or even experts on their own experience'. Such an approach assumes that only adults, such as parents or teachers, can give valid accounts of a child's social and cognitive world (Mahon et al.,

1996). However, despite how well an adult knows a child and can voice their perspective, the child's *own* perspective provides important information about what they are thinking or feeling and what they actually want to say. Furthermore, children's lives are worthy of study in their own right and much research confirms that children are active and capable of making their own decisions and expressing their opinions (Cremin and Slatter, 2004; Davis, Watson and Cunningham-Burley, 2000; Dockett and Perry, 2007; James and Prout, 1990). Therefore, in order to obtain complete accounts of children's attitudes and experiences we must engage directly with them, 'listen attentively to their agendas' (Hood et al., 1996: 119), accept children's perspectives, views and feelings as genuine, valid evidence (Dockett and Perry, 2005) and reposition them as subjects rather than objects (Leonard, 2006).

It is important to note that listening is not a passive process; rather, it is an active form of communication that encompasses two-way verbal and nonverbal dialogue. Listening to children is essential in recognising and respecting their worth as sentient beings (Roberts, 2000). Undertaking research into their lives 'respects and promotes their entitlement to being considered as persons of value and persons with rights' (Greene and Hill, 2005: 3). Moreover, including children as active participants and listening to their voices is important if we want to better understand children's views and perspectives, to improve services that benefit them, and to ensure that their real needs, rather than their presumed needs are met (Cremin and Slatter, 2004; Dockett and Perry, 2005; John, 2007; McLeod, Daniel and Barr, 2006; Morris, 2003; NHMRC, 1999). Listening embraces respectful documentation and interpretation that takes time (Daniel and McLeod, 2005). As Moss (2001: 17) states: 'If we treat listening as a complex, multi-method, reflexive process, involving all our senses…, then this cannot be a rushed activity'. Furthermore, we must consider suitable age appropriate and child-friendly methodologies for studying children's lives in order to not only empower them, but to also

obtain valid, child-led data (Birbeck and Drummond, 2005; Clark and Moss, 2001; Dockett and Perry, 2007; John, 2007; Leonard, 2006; Morris, 2003). Both Birbeck and Drummond (2005) and Dockett and Perry (2007) suggest that when appropriate, relevant and meaningful research methods are utilised, children's voices and perspectives will be revealed and hence, a more sophisticated understanding of childhood will arise.

In promoting consultation with children and acknowledging that they are experts in their own lives, Article 12 of the UNCRC implies that children do not have the sole expertise. As Lancaster (2003) conveys, 'what is advocated is that another chair be pulled up…around the decision-making table' (as cited in Cremin and Slatter, 2004: 267). Without including young children in research, our understanding of their lives is fragmented, but by working in collaboration with them, we can seek to achieve a clearer view of their world and enable their voices to be heard. Although this process of obtaining the child's voice is often difficult, it is also worthwhile. For 'undertaking research…with children presents unique challenges but so are the perils on relying on information from studies conducted with adults and attempting to generalise these to children' (John, 2007: 158).

Drawing as a Means of Conveying Meaning

As articulated above, it is important that children are given the opportunity to share their thoughts and feelings freely. In the research context this has primarily taken place through verbal interactions (Brooks, 2005; Goodnow, 1977). Although a verbal approach is successful in gaining insight into children's minds, children know more than their oral responses suggest (Bach, 1990; Driessnack, 2006; Furth, 2002) and many researchers suggest that a drawing can reflect a child's inner world and allow them to 'express themselves in ways that language

cannot' (Malchiodi, 1998: 1). As Fury, Carlson and Sroufe (1997: 1154) note: 'It has been widely argued that the nonverbal nature of drawings may free the child to express emotions and attitudes that are otherwise difficult to express'. Silver (2001) proposes that images reflect nonverbal thinking and allow humans to articulate thoughts and experiences that cannot be put into words. In other words, the familiarity, freedom and non-threatening nature of a drawing can help children communicate what they think or how they feel. Therefore, just as verbal thought is intersection between thinking and speech (Vygotsky, 1962), so visual thought is the intersection between thought and drawing (Brooks, 2005). As Brooks (2005: 81) proposes: 'the power of drawing for children…is that it more closely represents thought'.

Drawings have been described as 'a nonverbal avenue of expression' (Dockett and Perry, 2005: 512), 'a constructive process of thinking in action' (Cox, 2005: 123) and a 'uniquely personal statement' (Malchiodi, 1998: 1). Studies have shown that 'children can use drawing...[to] communicate what they think' (Wu, 2007: 2), 'make their ideas visible' (Brooks, 2005: 90) or 'externalise a thought' (Coates, 2002: 23). Cox (2005) also suggests that children's drawings are natural, purposeful, full of meaning and actively define reality for the artist.

Approaches to Analysing Children's Drawings

Much research has been undertaken into the study of drawings and how they can express what a person is thinking, feeling or experiencing through a non-threatening medium. Traditionally, there have been three major approaches to analysing children's drawings (see Table 1). One emphasis has been on developmental understandings of children's drawings, where accuracy and representation was scored to determine intellectual maturity. A second tradition is the attempt to understand the psychological meanings depicted in children's drawings. A third,

more recent approach, meaning-making, aims to appreciate how children make sense of the world around them through visual representations. Each of these three approaches will be discussed in further detail below.

Developmental approaches

The purpose of developmental approaches to drawing is to determine the developmental level of children by analysing the sophistication of their drawings. Early research into drawings began with an emphasis on their use in determining a child's level of intelligence. Particular interest was given to human figure drawings to evaluate the emotional (Koppitz, 1968; Machover, 1949) and the intellectual (Burt, 1921; Goodenough, 1926; Harris, 1963; Naglieri, 1988) status of both children and adults. This was due to the fact that the human figure was thought to be universal and familiar among children of all cultures (Malchiodi, 1998). Goodenough (1926) and Harris (1963) explored drawings of the human figure to determine children's mental, rather than chronological age through the *Draw A Man* test. Both found that children's drawings of humans provided important information about their cognitive ability. However, although the test was developed as a measure of intelligence, Goodenough found that it also revealed personality traits. Similarly, the *Human Figure Drawing* test, developed by Koppitz (1968), was used to provide insight into children's educational ability and maturity, although Koppitz also was interested in the evaluation of personality.

In addition to studying the development of children's cognitive ability through drawings, the development of children's drawings has also been explored (Anning and Ring, 2004; Goodnow, 1977; Kellogg, 1969; Matthews, 1999). For example, Matthews' (1999) longitudinal studies of children's art making in home and school contexts have provided rich insights into children's development of drawing from birth to age 6, interweaving the psycho-

motor, aesthetic and cognitive aspects of drawing development. He argued that all children's mark making is intentional and suggested that children's drawing begins in their first year with intentionally making marks with food. Authors then suggest that at 1- to 2-years of age children make marks in the form of scribbling. By 3- to 4-years of age children are drawing tadpole people, with a circle and lines. The differentiation of head and torso is the next skill to emerge (Coté and Golbeck, 2007) and around 5 years of age children typically draw figures with arms, legs, fingers and facial features. Educational assessment tools such as *Who Am I?* (de Lemos and Doig, 1999) have been developed to assess children's developmental level and memory capacity through their copying and drawing of shapes, symbols, and people. *Who Am I?* specifies four developmental levels of drawing the human figure beginning with a score of one (1), indicating a scribble or a figure that is unrecognisable as a person, and ending with a score of four (4) indicating the ability to draw detailed facial features and body parts.

Psychological approaches

The second approach to the analysis of children's drawings focuses on their psychological content with the purpose of assessing and providing intervention for children in need. Children's drawings have been used extensively in the fields of education, psychiatry, psychology, and art therapy (Malchiodi, 1998). Psychologists and therapists have analysed children's drawings for many reasons, including cognitive, personality, and diagnostic assessments (Cherney, Seiwert, Dickey and Flichtbeil, 2006), psychological assessment and evaluation (Arnheim, 1969), as well as therapy and treatment (Malchiodi, 1998). Human figure drawings in particular have been, and continue to be, widely used by psychologists for evaluating a child's mental maturity as well as to look for signs of unconscious needs, conflicts, and personality traits (Bach, 1990; Furth, 1992; Rollins, 2005). Koppitz (1968: 5) suggests that drawing is a reflection of a child's inner representation of self: 'The person a

child knows best is himself; his picture of a person becomes therefore a portrait of his inner self, of his attitudes'. Two of the areas that have utilised psychological approaches to children's drawing include significant illness and children's attachment. Each will be discussed briefly.

Drawing has been used as a psychological assessment and intervention approach particularly for people who have significant illnesses such as cancer (Bach, 1990; Councill, 2003; Favara-Scacco, Smirne, Schilirò, and Di Cataldo, 2001; Furth, 2002; Rollins, 2005), for people involved in traumatic events (Avrahami, 2006) and for those who are dying (Connell, 1992). Rae (1991) used drawing as a means of understanding children's emotional progress during illness. The application of drawing often has been inspired by the work of Carl Jung (1960) who explored the psychological content of art expressions and attempted to understand the inner world of the human psyche through both his own and his patients' drawings (Malchiodi, 1998). Jung's philosophy towards art and drawings initially was adapted by authors such as Susan Bach (1990) and Greg Furth (2002) and subsequently, other authors have further applied their insights. For example, Rollins (2005: 205) indicated 'a child's drawing can be a window not only to the child's feelings about his or her illness, but also to cognitive and developmental maturity, coping styles and personality…artwork also can assist the medical team in assessing the degree of impairment.' Rollins (2005) asked 22 children aged 7 to 18 years with cancer to create three drawings and found that children were able to discover difficult issues in a safe environment discussing physical aspects of cancer and its treatment, near-death experiences, as well as the fact that they were missing out on many aspects of life. Favara-Scacco et al. (2001) indicated that art therapy during an invasive event calmed children and reduced ongoing trauma.

Another psychological approach to the analysis of drawings has been to use drawings to examine the quality of young children's attachment relationships. Perhaps the most well-known tool is that of Fury (1996), who developed a scoring system in order to assess children's drawings of their families as a means of identifying and rating dimensions of relational negativity in close relationships. This coding system has since been used to further explore child-family relationships (Clarke, Ungerer, Chahoud, Johnson and Steifal, 2002; Madigan, Ladd and Goldberg, 2003) and adapted successfully to explore child-teacher relationships (Harrison, Clarke and Ungerer, 2007). Such studies reveal that drawings can provide insight into the emotional quality of a child's relationship with another human being.

Meaning-making approaches

Considering children's drawings from a meaning-making perspective has more recently been incorporated into the research arena (Picard, Brechet and Baldy, 2007). The purpose of considering children's drawings from a meaning-making perspective is to understand children's views on a topic and to assist adults to understand children's perceptions, thoughts and experiences (Coté and Golbeck, 2007; Cox, 2005; Dockett and Perry, 2005; Driessnack, 2006; MacPhail and Kinchin, 2004; Leonard, 2006). As Driessnack (2006: 1415) suggests, 'The child's drawing acts as a transitional space in which feelings can be externalized into a concrete form that can then be manipulated, reworked, or reconstructed'. A number of studies also highlight the importance of listening to children's verbal comments as they draw, in order to create a more complete and valid meaning and prevent imposing of adult interpretation (Brooks, 2006; Clark and Moss, 2001; Coates, 2002; Dockett and Perry, 2005, 2007). These studies have explored children's drawings in a variety of areas including the evaluation of learning experiences (Bowker, 2007; MacPhail and Kinchin, 2004), transition to school (Dockett and Perry, 2005), bullying (Bosacki, Marini and Dane, 2006), and the

experience of fear (Driessnack, 2006). Additionally, studies have also considered how children's perceptions of their drawings differ from adult assumptions (Coté and Golbeck, 2007) and explored stories contained within drawings by children (Coates, 2002).

Rather than assessing the cognitive or emotional aspects of the drawing, the aesthetic quality of the drawing, or the child's ability to draw, these studies focus on the message conveyed through the child's drawing. These researchers acknowledge the process of creating the image, as well as the final product. They also recognise that 'the interpretation belongs with the child, rather than the researcher' (Dockett and Perry, 2005: 515). Dockett and Perry's (2005) research, for example, utilised a range of strategies such as drawing, verbal conversations, picture books, oral and written journals and digital photographs to include children's views on starting school. For the drawing aspect of their research, children were invited to draw pictures depicting what they thought school would be like before starting school, and what school was like when they were at school. The researchers relied on comments made by the children about their drawings to avoid placing adult interpretation on the child's work. Similarly, Driessnack (2006) utilised drawings in conjunction with verbal responses to ask children to think of a time when they were most afraid, draw it, and talk about it. However, the purpose for which the drawings were used in this study differed from Dockett and Perry's purpose. Rather than using the drawings to explore children's views, Driessnack used the drawings as a starting point for conversation, proposing that the process of drawing stimulated the children's thoughts and facilitated their ability to talk, therefore increasing the amount of information the children shared. Coates (2002: 26) also advocated that talking and drawing go hand in hand, emphasising that as researchers and observers of the drawing process, we are 'not in the position to know the thinking behind them'. However, rather than asking children to draw about a particular topic, Coates observed the children free

drawing in their natural educational setting. The findings suggest that young children engage in frequent self-talk when drawing, creating narratives to accompany their pictures. Consequently, Coates highlights the need to consider such verbal conversations as an essential ingredient to the drawing process: 'Indeed, at times it seems as though it is only the product that is being interpreted whilst utterances which could aid understanding are ignored' (Coates, 2002: 23).

To summarize, drawing is an age-appropriate and non-threatening tool, which can provide a non-verbal means of communication and has the potential to allow children to express their experiences, thoughts, feelings and opinions (Brooks, 2005; Malchiodi, 1998). As Koppitz (1968) has stated:

> Drawing is a natural mode of expression for children...Long before youngsters can put their feelings and thoughts into words, they can express both conscious and unconscious attitudes, wishes and concerns in drawings. Drawing is a non-verbal language, a means of communication. (cited in Fury et al., 1997: 1154)

However, despite being used extensively in educational, cognitive and social development research, drawings have rarely been utilised in attempting to understand the views of those with communication impairments.

Using Drawing with Children with Communication Impairment

For most people, participating in life is primarily through verbal communication (Stuart, 2002). For those who find it difficult to communicate, participating in life can be frustrating. The term 'communication impairment' refers to difficulty in one or more of the following

areas: speech (articulation/phonology), language (expressive/receptive), stuttering, voice production and hearing (Sunderland, 2004). Children who have a speech impairment may be unintelligible even to familiar listeners. Some children who have a language impairment may have word finding problems, and difficulty constructing adult-like sentences. Some children who stutter may avoid certain speaking situations, especially those that are stressful. Communication impairment is 'a high prevalence condition' according to the findings of a systematic review (Law, Boyle, Harris, Harkness, and Nye, 2000: 179) with recent studies suggesting prevalence may be as high as 12-14% (McLeod and Harrison, 2008; McLeod and McKinnon, 2007). Communication impairment has been identified by teachers as occurring more commonly than behaviour problems, hearing impairment, visual impairment and intellectual impairment (McLeod and McKinnon, 2007). Most children who have a communication impairment do not have concomitant intellectual or hearing impairments (McLeod and McKinnon, 2007) and for most there is no known cause for their communication difficulties.

For all the above reasons, it is important that the voices of children with communication impairments are heard, particularly in research. However, as Morris (2003) highlights, very rarely are these children included in research because traditional methods such as interviews and questionnaires may be inappropriate for gathering information. Children with communication impairments may find it difficult to verbally express opinions, attitudes and feelings. Although they are capable of developing well articulated thoughts, they may not be able to say what they are thinking intelligibly or easily. Whilst the impact of communication impairment on the affected individual and significant others has been acknowledged (McCormack, McLeod, McAllister and Harrison, 2008), there has been little research undertaken to examine the impact and severity at the level of the individual. This is

particularly true for children. For this reason, new research has turned to drawing to provide a means of allowing children to non-verbally express the impact of having a communication impairment and assist them in conveying feelings, attitudes and concerns through their images.

New approaches to research with children with communication impairment

That drawing can act as a facilitator of communication was clearly demonstrated in a pilot study of five children conducted by McLeod et al. (2006). Figure 1 shows two drawings by an 8-year-old boy with highly unintelligible speech. When this young boy was asked to draw how he felt about his talking, he presented a picture that articulated his unhappiness and frustration with his speech. Although this was confirmed by his mother, his own drawings offer a stronger confirmation of how he viewed his speech. In contrast, his second picture (when asked to draw something he liked doing) emphasised his desire to participate in nonverbal, rather than verbal activities. Figure 2, also from the work of McLeod et al. (2006), was drawn by a 6-year-old boy who had somewhat unintelligible speech. Despite the fact that this drawing was much less sophisticated than the drawing in Figure 1, he was able to convey his sadness at his ability to articulate words and the need for a person with 'listening ears' in order to understand him.

Insert Figures 1 and 2 here

Similar findings for the facilitating role of drawings were noted by Holliday (2008) who examined the drawings of 59 4- to 5-year-old children with speech impairment. In this study the children were asked to draw themselves talking to someone. They drew a range of conversational partners, but the majority chose to draw themselves talking with a family member or friend. A few children did not draw a conversational partner; for example, one

stated that there was 'no-one else' he liked to talk to. A number of children enlarged the mouths of the talker and the ears of the listener within their drawings, some showing joint attention through the positioning of the people. The majority of children conveyed happiness in their drawings through smiles, vibrant colours, and positioning of the figures. However, some of the children conveyed negative emotions through scribbling over their drawing or through sad or angry facial expressions.

In these studies drawing facilitated the communication of these children with communication impairment. Despite not being competent in verbal communication, these children were able to express their emotions through their art. Silver (2001: 11) confirms this notion, suggesting that for children who find it difficult to put thoughts into words, 'expression through visual art forms may be more than a matter of preference'. McLeod et al. (2006: 44) concluded:

> [the children's] rich, real world experiences were illuminated in their drawings and demonstrated strong messages about the impact of a communication impairment on their lives…For children, particularly those with a communication impairment, rich descriptions of their world can be gained by the inclusion of drawings, a natural mode of communication for children.

However, there is a paradox when listening to children through drawing that is highlighted when working with children with communication impairment. As previously articulated, many meaning-making approaches to analysing children's drawings have used children's verbal interpretations to confirm the child's meaning in their drawing (Coates, 2002; Dockett and Perry, 2005; Driessnack, 2006). Unfortunately, children with a communication impairment may not be able to provide clear oral explanations, so that the interpretation may not be readily provided by the child. Interpretation can be facilitated by using other forms of data as confirmation (e.g., simple yes/no questions about the drawing, asking the child to

select a facial expression that best represents how they feel etc). Morris (2003) also suggests looking out for other forms of nonverbal communication during the drawing session, including facial expressions and gestures. The researcher can also consult the child's parent or caregiver to interpret the child's responses, but again, this exaggerates the paradox of requiring adult input to listen to children with communication impairments.

Features of drawings of children with communication impairment

Identification of key features, or focal points, that illuminate meaning in children's drawings is supported in both psychological and meaning-making approaches to drawing (e.g., Bach, 1990; Furth, 2002). Furth (2002; 32) defines focal points as '…literally *what* our attention focuses on in the picture that gives us an indication as to how to approach the patient's psyche' and suggests that a combination of focal points that are broad in scope should be considered when interpreting meaning from children's drawings. Furth suggests that adults should approach a drawing gradually; systematically considering aspects including: 'color, shape, direction of movement, placement, number of repeated objects, and missing items' (Furth, 2002: 35), and then outlines 31 different features to consider within children's drawings. He then states that these individual components should then be integrated into a holistic view. Furth's work is based within a Jungian psychological approach; however, meaning-making approaches can also benefit from systematic consideration of key features, or focal points.

When making meaning from the drawings of children with communication impairments, the following six features are offered as suggested aspects to consider when 'listening' to these children's messages through their drawings: facial expressions, accentuation of body features, portrayal of talking/listening, colours used, conversational partners, and sense of self. These

features have been noted in drawings created by children with communication impairments (Holliday, 2008; McLeod et al., 2006).

1. **Facial expressions:** Misailidi and Bonoti (2008) have indicated that children as young as three can understand emotions expressed in drawings; particularly the emotions of happiness, sadness and fear. As well as understanding emotions in drawings, children have the ability to clearly and powerfully convey emotions through facial expressions in their drawings (see Figures 1 and 2). The difference between a sad mouth and a happy mouth has the potential to express a child's feelings about their communication ability. If the drawing conveys both the child with communication impairment and another person, the facial expressions in each drawing should be compared. For example, in Figure 2, the child with the communication impairment is on the left with a sad mouth, whereas the person he is talking with has a happy mouth. Other expressions that have been drawn by children with communication impairments include: anger, sadness, worry and being scared (Holliday, 2008).

2. **Accentuation of body features:** Children with a communication impairment may accentuate body features such as the mouth and the ears, as these are crucial in the communication process (Holliday, 2008; McLeod et al., 2006). For example, the two pictures drawn by the same boy in Figure 1 demonstrates his accentuation of the mouth and tongue. Ears are accentuated in Figure 2, and the artist corroborated this by stating that the person had 'listening ears'. Furth (2002:51) suggests that if a part of a figure is 'drawn out of proportion [t]his may symbolically represent problem areas where more concentration and understanding could help return the distortion to normality'.

3. **Portrayal of talking/listening:** Children may portray talking and listening by using sound waves, speech bubbles or written words to portray a conversation. For example, the sound

waves in Figure 2 indicate the talking/listening process. Additionally, the only colour that was used in Figure 2 was a red curved line coming from the sad mouth of the boy with the communication impairment; possibly indicating talking. Distance between the people drawn may also represent how comfortable a child feels talking to a person. Conversational partners may also be drawn leaning towards one another (Holliday, 2008).

4. **Colours used:** Children with communication impairment may convey different emotions by their choice of colour. When asking children to draw, it is important to provide them with a full spectrum of coloured pencils or textas. Different colours may be interpreted to represent different emotions and may be symbolic of their attitude towards talking. Drawings that contain bright colours evoke a sense of positivity, vitality and creativity (Fury, 1996). Drawings that contain few colours, particularly dark colours such as black or brown, evoke a sense of negativity, less energy and enthusiasm (Fury, 1996). Furth suggests that nature provides additional guidance on interpretation of colour (e.g., green represents health and growth, yellow represents energy and warmth) (see Furth, 2002: 98 for further details).

5. **Conversational partners:** There are two primary techniques that have been used to elicit children's drawings in research: unstructured tasks, where children are invited to draw without any further direction; and structured tasks, where children are provided with instructions about who or what to draw. Much of the previous research into drawings specified who children draw; for example, themselves (Goodenough, 1926), their family (Fury, 1996), or themselves with their teachers (Harrison et al., 2007). If children are asked to draw themselves talking with someone, additional information is provided just by who they select as their conversational partner. Holliday (2008) found that the majority of 4- to 5-year-old children with speech impairment chose to draw themselves talking to a family member or friend with a few children drawing themselves talking to others such as

imaginary friends, television characters or animals. The conversational partner may be someone they are familiar and comfortable talking with, or someone with whom they feel uncomfortable talking with. In Figure 2, the listener is unknown, but appears to be supportive of the child with the communication impairment since they have a smile on their face and listening ears.

6. **Sense of self:** Furth (2002) indicates that it is important to consider the proportion of objects and people within a drawing. A child's sense of self will be represented through size differentiation and detail. For example, if a child feels they are less important or less valued, they may draw themselves smaller and less detailed than the person they are talking to. Determining who they are talking to will also aid in this, as size differentiation may align with the fact that they are talking to an adult who is perceived as taller. Figure 2 provides an example of consideration of size. The drawing in Figure 2 has been enlarged for publication; however, the original drawing was made on the lower edge of the page, with the entire drawing being only 2cm across and 4cm high. This may indicate a diminished sense of self for this 6-year-old with unintelligible speech.

Cautions

There are cautions to consider when eliciting and analysing the drawings of children with communication impairments, many of which also relate to working with any children. Firstly, it is important to recognise that drawing may not be a familiar, comfortable or positive experience for all children (Einarsdottir, Dockett, and Perry, in press) and that some children will not respond in a positive way to this request. In the authors' experience (Harrison et al., 2007; Holliday, 2008; McLeod et al., 2006), the vast majority of children (aged 4- to 6-years) who participated in our research were willing to draw a picture. Some children, however, did not draw the requested "you and your teacher at school" or "themselves talking". Instead they

drew objects, patterns or other images. Drawing cannot be forced; the child's response to the request, and their choice of topic needs to be respected. It is important to gain and respect children's decision to assent to participate in any research (Dockett, Einarsdottir, and Perry, in press; Harcourt and Conroy, 2005).

A second caution relates to validity and reliability when interpreting children's drawings. Adults may misinterpret children's meanings, placing emphasis on features that were accidentally enlarged, colours that were inadvertently selected and so forth. Additionally, it may not be valid to make meaning from one drawing as it may not be representative of the child's full account if other techniques are added to the listening process. Additional drawings created by the child may convey different meanings from the first drawing. Children's drawings do change over time, and this has been used in art therapy to compare adjustment and coping at a later stage (Rae, 1991).

A third caution refers to the paradox mentioned earlier that researchers will need to rely more heavily on adult interpretation when listening to messages conveyed through the drawings of children with communication impairment, because they are less likely to be able to articulate intelligibly and describe their own drawings. The six features identified within the current paper may be facilitative in listening to the messages conveyed through the drawings of children with communication impairment.

Conclusion

It is important that research methodologies ensure that all children and young people have the opportunity to be heard, because each person has something to communicate. As has been highlighted, children with communication impairments have been marginalised in the

research context. As researchers, it is up to us to find ways of understanding and exploring these children's views and experiences (Morris, 2003). One method for doing so is to invite children to draw; whether this is in a structured or unstructured drawing task. Three approaches used by researchers to analyse children's drawings have been discussed: developmental, psychological and meaning-making. Each of these can provide insights into the lives of children with communication impairment; however, the third approach, meaning-making, is more likely to provide opportunities for these children to express their views freely, as recommended by the United Nations (Article 13):

> The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice. (UNICEF, 1989: 4)

Such an approach aims to promote the involvement of all young children in research in order to explore their perspectives and experiences. It acknowledges the right children have to participate in research and allows them to do so through a natural and child-friendly medium.

Acknowledgment

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Table 1. Three approaches to the analysis of children's drawings.

Major Analysis Approaches	Descriptors	Themes	Interpreter	EXAMPLES	
				Analysis Tool	Researchers who have developed/used/adapted the tool
Developmental	Analyses drawings in terms of what they contain	- Cognitive development / intellectual competence - Maturity	Adult	*Draw A Man* test	Developed by: Goodenough (1926) Used by: Harris (1963)
				Human Figure Drawings (HFDs)	Developed by: Koppitz (1968)
				The Silver Drawing Test	Developed by Silver (1978)
				Draw A Person	Developed by Naglieri (1988)
				Who Am I?	Developed by: de Lemos & Doig (1999)
				Other general developmental analyses	Anning & Ring (2004); Burt (1921); Goodnow (1977); Kellogg (1969); Machover (1959); Matthews (1999)
	Analyses	- Therapeutic device	Adult	Art therapy	Avrahami (2006); Bach (1990); Councill (2003);

Psychological	drawings to find 'hidden' or subconscious meanings	- Emotions eg, fear, happiness - Attachment / relationship quality - Personality			Favara-Scacco et al. (2001); Furth (2002); Jung (1954; 1956; 1960); Rollins (2005)
				Child-family scoring system	Developed by: Fury (1996) Used by: Clarke et al. (2002); Madigan et al. (2003) Adapted by: Harrison et al. (2007)
				Other general psychological approaches	Arnheim (1969); Malchiodi (1998)
Meaning-Making	Analyses drawings in terms of what the convey – how children make sense of the world around them	- Expression - Feelings - Experiences	Child	*Mosaic Approach*	Developed by: Clark & Moss (2001) Used by: Cremin & Slatter (2004) Adapted by: McLeod et al. (2006)
				Other general meaning-making approaches	Bowker (2007); Brooks (2006); Coates (2002); Cote & Golbeck (2007); Cox, M. (1992; 1997); Cox, S. (2005); Dockett & Perry (2005); Driessnack (2006); MacPhail & Kinchin (2004)

Figure 1. a) "How I feel about my talking" b) "I am happy doing anything like art" (By an 8-year-old boy from McLeod et al., 2006, p. 42)

Figure 2. "Talking to someone with listening ears" (By a 6-year-old boy from McLeod et al., 2006, p. 41)