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Task-Centered Activities as an Approach to Data Collection in Research with Children and Youth

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Abstract

Children and youth are an important population for research and practice in library and information science. However, comparatively little research has been conducted that directly engages with the perspectives of these groups, particularly when children younger than school age are considered. Task-centered activities, a type of data collection method used in the field of childhood studies, offer a means of conducting research with children and youth in a way that builds on their strengths and competencies. Specific examples of task-centered activities include arts-based approaches; photography; drama, play, and games; child-led tours; diaries; and participatory activities. The benefits and limitations of these activities are discussed, as well as their prior and potential application in library and information science.

1. Introduction

The field of library and information science (LIS) has long been concerned with children and youth (collectively referred to here as “children”). Services for this group are a central component of public and school libraries, with many information professionals choosing to specialize in these areas. Children’s library use, information literacy, information behavior, and engagement with technology are examples of active research areas that have the potential to influence information services for these populations. For example, recent research has explored children’s use of apps and tablets in public library summer reading programs (McDowell, Stevenson, & Mabbott, 2014), children’s motivations for participating in summer reading programs (Becnel, Moeller, & Matzen, 2017), teens’ experiences in school library makerspaces (Li & Todd, 2016), and the impact of technology on teens’ perceptions of libraries (Agosto, Magee, Dickard, & Forte, 2016). These and other studies demonstrate the ways in which exploring children’s experiences can directly influence information services for these populations, in addition to contributing to the existing literature in the field.

2. Etic and emic approaches to research with children

The decision to take an emic or an etic approach to research with children is one that is ‘fundamental’ to the entire research enterprise (Shenton, 2010). In research that seeks to examine children’s needs and experiences, an emic approach requires a focus on the perspectives of children themselves, while an etic approach relies on the perspectives of others, such as parents, librarians, and other adults that play significant roles in children’s lives (Shenton, 2010). Examples of the etic approach in LIS research include an observational study of a single child’s use of touch devices (Agarwal, 2014), video-recordings of children’s interactions with technology in the home (Given et al., 2016) and in the classroom (Spink, Danby, Mallan, &

Butler, 2010), and a survey of parent perceptions of children's information practices (AUTHOR). A survey of preteens' information seeking as a part of coping with daily life experiences (Lu, 2010), as well as focus groups examining young children's attitudes towards books and reading (Jug & Vilar, 2015) and elementary school children's opinions about various search engines (Large, Beheshti, & Rahman, 2002), demonstrate the use of an emic approach to studying children. Both emic and etic approaches to research have value, contributing in different ways to our growing understanding of children's experiences. The choice to take an emic or an etic approach in research with children should be informed by the type of research questions the researcher seeks to address, as well as the theoretical, practical, and moral implications of using an emic approach (Greene & Hill, 2005).

Incorporating the perspectives of children in research can result in important theoretical developments in any social science field, and can specifically "allow information science to create more nuanced and less static descriptions of and knowledge about children and the conditions within which they perform their information activities" (Lundh, 2016, Discussion and conclusion, para. 4). Children can provide insights into their own experiences that cannot be obtained in any other way than their direct engagement in the research process. Incorporating children's perspectives into research allows researchers to move beyond describing *what* children do to explaining *why* they do what they do (Greene & Hill, 2005). These unique perspectives can add to our understanding of any phenomena that involves children in some way (Dahl, 2014), including those related to information, literacy, engagement with technology, library use, and other areas of active LIS research. Investigations of matters related to children in LIS such as these will obviously be incomplete if their perspectives are not elicited.

The implications of eliciting children's thoughts and perspectives in research extend beyond theory and into practice. Child-centered research is one of the elements that enable librarians and other information professionals to provide child-centered library services (Agosto, 2013). For example, the types of information and resources that adults believe children need and should have access to may not match well with children's own perceptions of what they require (Bates, 1996; Shenton, 2010). This is particularly problematic for younger children, as Bates (1996) has argued that "the younger a child is, the more the adults around that child decide what information gets to that child" (p. 8). In order to provide information materials and services that meet the needs of children, information professionals need to have a more accurate picture of what these needs are. In order to do so, children's own perspectives should be elicited and privileged.

Finally, there are also moral considerations when deciding to include children in LIS research. Shenton (2010) has questioned the "morality of allowing one group within society to speak for another" (p. 60), and notes that adults or others who act as informants in children's lives may bring their own biases or "agendas" to the research process (p. 60). In contemporary society, children lack control over many aspects of their day-to-day lives, and so deserve to be given a voice in research on topics that concern them in some way. Allowing children to voice their perspectives on issues of importance to them is one step toward rectifying this issue, as is the incorporation of their voices into the practice of professionals working in service to these populations. As Agosto (2013) notes, by taking the "behaviors, thoughts, and preferences" of children into account, libraries can offer services that better fit the needs of these groups (p. 48).

Although an emic approach to research with children contributes to addressing the theoretical, practical, and moral issues briefly outlined above, etic approaches tend to dominate

in LIS research concerned with children. This is particularly evident in the body of research that deals with children younger than school age, a group that has been the focus of little LIS research overall (Spink & Heinstrom, 2011). Perceived barriers to taking an emic approach to research with young children include the emergent nature of their abilities to read, write (Cooper, 2002), and express themselves verbally (McKechnie, 2000), with some researchers arguing for the use of indirect methods of studying young children's experiences, such as recording children's naturally occurring talk, naturalistic observation, and parental reports of children's activities (Cooper, 2002; McKechnie, 2000). Even those researchers working with older populations who acknowledge the value of involving children directly in the research process may still position data gained from adults such as parents as a means of 'verification' or "validation" of the data gained from children (e.g., Shenton, 2010, p. 65). These authors' discussions regarding research with children indicate that research methodology used within LIS remains heavily influenced by traditional conceptions and models of children and child development, as existing research tends to be adult-driven, rather than child-led.

3. Childhood studies approach to research with children

Bernier (2013) has criticized LIS scholars for their over-reliance on "dated" theories of child development, specifically those from the field of developmental psychology (p. 2). He has argued that the influence of these outdated theories can be seen in both research and practice in the field, and "has contributed to LIS's lagging far behind today's best thinking on youth" (p. 2). Many LIS scholars continue to incorporate the work of developmental psychologists such as Piaget and Vygotsky into their examinations of children; however, theories such as these are not in widespread use by contemporary scholars working in the area of child development (Byrnes & Bernacki, 2013). Bernier (2013) has encouraged LIS to look beyond the field of developmental

psychology for inspiration in “developing its own vision of youth grounded in its own research for its own legitimate institutional purposes” (p. 12) that is not rooted in these dated traditions.

The field of childhood studies, also referred to as the sociology of childhood, offers an alternate approach to conceptualizing and engaging in research with children that has the potential to be quite useful for LIS research. In childhood studies, children are positioned as competent social actors and childhood itself is considered to be a social construction (Corsaro, 2014; Prout & James, 1990). Several scholars have drawn comparisons between feminist theory and the childhood studies paradigm, in that children are considered to be a marginalized group within contemporary society (James, Jenks, & Prout, 1998; Thomson, 2008) whose voices have been traditionally excluded from research (James, 2007). Within this paradigm, attention is directed to understanding children’s perspectives through the research process and making these perspectives or voices known via the dissemination of research results that remain true to the children’s perspectives (James, 2004; Thomson, 2008). Scholars working in childhood studies note that while it is important to keep in mind the ways in which children can vary developmentally, even when operating from the framework of childhood studies (Hill, 2005), it would be “misguided” to rely completely on developmental models in considering children’s capabilities in involving them in research (Hart, 1992, p. 31). As Agosto (2013) notes, developmental theories should instead serve as “general guidelines within which there is wide individual variance” (p. 48).

Greene and Hill (2005) argue that the use of the childhood studies paradigm requires researchers to make use of methods that “capture the nature of children’s lives as lived” (p. 3), rather than studying their actions in contrived situations. Qualitative approaches to research offer the preferred means through which children’s experiences can be understood (Hogan & Greene,

2005), as they are “more able to capture the full richness of experience” (Greene & Hill, 2005, p. 13). The importance of taking a multidisciplinary (Hogan & Greene, 2005) or interdisciplinary approach (Pufall & Unsworth, 2004) to research has also been highlighted. However, most important to this approach is making the research process “child-centered” (James, 2007, p. 266), rather than including children in a decorative or tokenistic manner (Hart, 1992), with the recognition that children are the best informants of their own lives (Soffer & Ben-Arieh, 2014). This is necessary in order for research to move from being *on* children to *with* children (Christensen & James, 2008).

There is increasing evidence of the use of child-centered perspectives in LIS research. For example, in their discussion of the methodology used to investigate the information behaviors of preteens, Meyers, Fisher, and Marcoux (2007) explicitly position their incorporation of participatory techniques as a move away from “doing research *on* youth to doing research *with* youth” (p. 313). Agosto and Hughes-Hassell (2005) and Fisher, Bishop, Fawcett, and Magassa (2014) have also adopted participatory, child-centered techniques into their research with adolescents, as have researchers working with children in the area of technology design (e.g., Bilal, 2003; Druin, 2005; Fails, Guha, & Druin, 2013; Large et al., 2002). The ways in which task-centered activities, a means of data collection drawing from the childhood studies, can be used more broadly within LIS research is explored here.

4. Task-centered activities

Task-centered activities, a means of data collection that has been used in research in the field of childhood studies, affords children the opportunity to directly engage in the research process by building on their communicative strengths and competencies. Although this data collection method is highlighted here for its potential for use with young children, researchers

can and have used this method with children of any age. Task-centered activities have been used in many different types of research with children, including that conducted by academics, community workers, and practitioners, and have the potential to be used in LIS research, including studies of children's information behavior, engagement with technology, and information literacy.

Within the field of childhood studies, researchers have developed a number of non-traditional or innovative research methods that help to move researchers closer to doing research with children. Scholars argue that the use of these more participatory methods help to address the power imbalance between the child participants and the adult researcher (Thomas & O'Kane, 1998; Valentine, 1999). Many of these methods have been used with adults in various research traditions within the social sciences, including sociology, anthropology (Rose, 2012), participatory action research, and participatory appraisal (Johnson, Hart, et al., 2014), but are discussed here in relation to their use within the childhood studies paradigm. One type of participatory method used in childhood studies is the use of task-centered activities (James et al., 1998). Task-centered activities are a means of collecting data with children in ways that ask the children to not just simply talk, but also to do – that is, to engage in some type of activity that allows them to communicate their ideas, opinions, and perspectives in other than solely verbal means (James, 2001). These activities are typically incorporated into interviews or focus groups, and can be used on their own or in conjunction with other methods such as participant observation (James, 2001). These activities are frequently described as drawing on children's natural communication patterns (Thomas & O'Kane, 1998) and as being enjoyable and engaging for the children (Johnson, Hart, et al., 2014; Soffer & Ben-Arieh, 2014; Thomson, 2008).

The potential for task-centered activities to enrich an interview setting has been demonstrated by Danby, Ewing, and Thorpe (2011) in their conversation analysis of the transcript of an interview between an adult interviewer and a five-year-old child. These researchers found that the introduction of a task-centered activity facilitated more elaborate and richer interview responses from the child, and also better positioned the interviewer to further explore these responses. Danby et al. (2011) also note that after the task-centered activity was complete, the remainder of the interview more closely resembled naturally occurring conversation, rather than potentially awkward and contrived interview exchanges.

4.1 Examples of task-centered activities

The task-centered activities described below can be conducted with individual children or with groups, and include arts-based approaches; photography; drama, play and games; child-led tours; diaries; and participatory activities. Advantages and disadvantages of each of these types of activities are discussed below, as well as examples of their use in research with children in LIS and beyond.

4.1.1 Art-based approaches

Art-based approaches involve asking children to create drawings, collages, or posters as part of the research process. Arts-based approaches may help to keep children's interest, and also may lend structure to the interview setting (Fargas-Malet, McSherry, Larkin, & Robinson, 2010). As Clark (2011) notes, "art making can be a catalyst for story telling" (p. 157). LIS researchers have incorporated children's drawings and other artistic creations into studies of children's understandings of the concepts 'information' (Shenton & Dixon, 2003) and 'knowledge' (Bowen & Evans, 2014/2015), recollections of instances of information seeking (Crow, 2011), teens' experiences as information intermediaries (Fisher et al., 2014) and of information (Smith &

Hepworth, 2012), ideas for search engine (Bilal, 2003) and software interface design (Druin, 2005; Druin, Stewart, Proft, Bederson, & Hollan, 1997; Kraveva, 2017), and the development of visual taxonomies (Large, Beheshti, Tabatabaei, & Nettet, 2009).

Researchers in other fields have used a variety of arts-based approaches in addition to drawing. For example, the children in Green's (2015) study made use of drawing, painting, building blocks, and modelling clay in creating their "artistic representations" of places of importance to them (p. 329), while the children in Mayaba and Wood's (2015) study created drawings and collages to illustrate the ways in which folktales relate to their own lives.

However, as Clark (2011) and Fargas-Malet et al. (2010) point out, not all children like to draw. Additionally, children may limit their drawings to what they feel they can competently and accurately portray (Fargas-Malet et al., 2010). In group settings, this may be particularly salient; children may also be influenced by the presence of other children or adults in the research setting in completing their drawings (Green, 2012). Several scholars have noted that young children's artwork is of limited usefulness unless it is accompanied by some sort of description or explanation (Green, 2012; Veale, 2005). Fargas-Malet et al. (2010) argue that the children's explanations should be the focus of data analysis, rather than the drawings themselves. Children's explanations of their drawings also help to keep the focus on the children's perspectives, rather than on the adult researcher's interpretation of the images (Leitch, 2008). This approach reflects the use of a "drawing-as-a-verb" orientation (Clark, 2011, p. 142) to children's artwork, which focuses on the creation and meaning of the artwork, rather than artwork in and of itself.

4.1.2 Photography

Rose (2012) notes that researchers can incorporate their own photographs into research with participants, or make use of photographs that the participants have taken. In this discussion, focus is on the use of photographs in research studies in which the children themselves have taken the photographs. In typical research studies making use of this method, children are given a camera and some type of guidelines about what the researcher would like them to photograph (Einarsdottir, 2005). This research method offers children an active role in the research process – both literally and figuratively (Einarsdottir, 2005). Photography can be incorporated into child-led tours or children can take the photographs on their own time (Einarsdottir, 2005). In many studies, these photographs are later discussed in interviews or focus groups in a process known as photo-elicitation (Rose, 2012). The use of photography in research puts children in the position of expert (Clark-Ibanez, 2008; Einarsdottir, 2005) and quite literally places focus on their perspectives (Einarsdottir, 2005). This method may be useful for children who have limited verbal communication skills (Kaplan, 2008; Rasmussen, 2014), as they can combine their verbal communication with visual representations of the objects or ideas under discussion (Einarsdottir, 2005). Use of photographs in an interview setting affords children “a clear, tangible prompt” on which to base their discussions (Clark-Ibanez, 2008, p. 103), and allow children a greater degree of control over what is discussed (Einarsdottir, 2005; Fargas-Malet et al., 2010; Walker, Schratz, & Egg, 2008). Additionally, children’s photographs may capture objects or ideas that the researcher may have overlooked (Clark-Ibanez, 2008).

Photography has been increasingly used in studies of children’s experiences and in studies of information seeking, albeit with older populations. Hartel and Thomson (2011) have argued for the use of photography in studies of information space, either on its own or in conjunction with other methods. In studies published in LIS, undergraduate students have been

asked to take photographs related to their academic information seeking activities and use of library spaces (Briden, 2007; Gabridge, Gaskell, & Stout, 2008; Gratz & Gilbert, 2011). Agosto and Hughes-Hassell (2005) used photography in addition to other data collection methods in their investigation of the information needs of urban adolescents. Child-generated photography and subsequent photo-elicitation interviews have also been used to inform the design of a water safety app (Hall, Jones, Hall, Richardson, & Hodgson, 2007). Examples of the use of photography in research outside of LIS include an investigation of the experiences of children who have been labelled as ‘bad’ by adults in their lives (Clark-Ibanez, 2008), the perspectives of children about their early childhood education environment (Einarsdottir, 2005), and children’s perceptions of violence (Walker et al., 2008).

Much like art-based approaches, Rasmussen (2014) notes that it may be difficult to interpret children’s photographs without an accompanying description or explanation. The use of photo-elicitation interviews helps to alleviate this concern. However, Fargas-Malet et al. (2010) note that having children take and discuss their own photographs causes the researcher to lose some degree of control over what is discussed, as the children may not take pictures in accordance with the researcher’s guidelines. There are also ethical questions surrounding the use of children’s photographs, including issues of ownership (Rasmussen, 2014; Walker et al., 2008) and anonymity (Fargas-Malet et al., 2010; Rasmussen, 2014). Photographs also have the potential to create or reinforce negative perceptions about children’s environments (Kaplan, 2008), and to make visible aspects of children’s culture that were previously hidden from adult view and thus free from adult control (Burke, 2008).

4.1.3 Drama, play, and games

Drama, play, and games can be used as a method for children to communicate their lived experiences. Play and games can encompass physical play, symbolic play, playing with objects, or games with rules, while drama involves role-playing and can include the use of props (Johnson, Hart, et al., 2014). These methods of data collection have the benefit of being low-cost, a method of communication familiar to most children, and flexible enough to allow for virtually any topic to be incorporated (Johnson, Hart, et al., 2014). Play and games are a developmentally appropriate way for children to express their own thoughts and feelings (Johnson, Hart, et al., 2014). Skits and games have been used in LIS research examining teens' experiences as information intermediaries (Fisher et al., 2014), and children's understandings of security and privacy in online contexts (Kumar et al., 2017). Examples from outside of this field include the use of skits developed in response to hypothetical scenarios regarding membership in Nepalese children's clubs (Hart, Rajbhandary, & Khatiwada, 2015), role-playing of children's rights violations (O'Kane & Panicker, 2015), and the use of a board game to explore children's understandings of the concept of 'citizenship' (Larkins, 2015)

There is the potential for the dramas that children act out to reflect the stories that they themselves have been told, rather than their own experiences (Johnson, Hart, et al., 2014). This type of data collection method may exclude children who are unable to participate due to disability, temperament, or social hierarchies (Johnson, Hart, et al., 2014; Veale, 2005). Also, adult initiation of play and games may make these tasks seem more like work rather than fun (Johnson, Hart, et al., 2014). These methods are also typically limited to use with groups of children, rather than individuals (Veale, 2005).

4.1.4 Child-led tours

Child-led tours have been characterized as a “mobile interview” (Johnson, Hart, et al., 2014, p. 42), and involve children taking the researcher on an exploration of the physical spaces and places of importance to them. Tours allow children to show the researcher places of importance, rather than relying only on their verbal communication abilities (Green, 2012; Johnson, Hart, et al., 2014). Such tours also help to address the power imbalance inherent in research with children, as children are placed in the position of expert (Green, 2012; Johnson, Hart, et al., 2014). THE AUTHOR recently made use of child-led tours in a study exploring 3- to 5-year-old children’s perceptions of information and information sources within their daycare. There are no other evident examples of the use of child-led tours in LIS research, although a similar approach has been used in studying undergraduate students’ information behavior (Polkinghorne, Given, & Carlson, 2017). In other disciplines, child-led tours have been used to explore children’s perspectives of their school neighborhoods (Loebach & Gilliland, 2010), the outdoor area of their early childhood education center (Merewether, 2015), and their understandings of well-being (Crivello & Rojas Arangoitia, 2015).

It is important to note that children may find such tours to be intrusive (Green, 2012) and may not want to show researchers places of importance to them (Johnson, Hart, et al., 2014). Tours may also raise additional ethical complications related to taking children outside of the typical research setting, such as making sure children are safe and that the researcher is not alone with the children (Johnson, Hart, et al., 2014).

4.1.5 Diaries

Some scholars have included the use of participant diaries in their research, alternatively called life storybooks (Fargas-Malet et al., 2010), profile books (Driscoll & Rudge, 2005), and scrapbooks (Bragg & Buckingham, 2008). These diaries typically include a combination of

photographs and written annotations, or they can be constructed in video format (Noyes, 2008). Noyes (2008) posits that video diaries elicit different kinds of information than more traditional, interview type settings. Diary approaches such as these may provide a "more 'private' and individual form of communication than interviews" (Bragg & Buckingham, 2008, p. 116). They also afford the opportunity for children to document their experiences over an extended period of time.

An example of a variant of this approach can be seen in LIS in the work of Agosto and Hughes-Hassell (2005), who asked the teens in their study to keep activity logs and audio journals of their information seeking, as well as studies that used journals to document students' thoughts, feelings, and actions when engaged in information search activities (Kuhlthau, 1983; Nasset, 2013) and child-adult team design brainstorming activities (Alborzi et al., 2000). Examples from LIS with undergraduate students include the use of online diaries of research behavior (Pellegrino, 2014) and photo-diaries of reading behavior (Keller, 2012). Examples from outside of LIS include the creation of scrapbooks related to children's media consumption related to sex and relationships (Bragg & Buckingham, 2008), profile books of important things in children's lives (Driscoll & Rudge, 2005), and video diaries of children's attitudes toward mathematics (Noyes, 2008). While Noyes (2008) and Bragg and Buckingham (2008) conducted their research with older children and teens, Driscoll and Rudge (2005) explicitly discuss the use of profile books with young children with assistance from adults

Fargas-Malet et al. (2010) posit that such diary-based approaches may seem too similar to schoolwork to children. They also raise the issue of privacy, as parents, teachers, and other children could potentially gain access to these research materials as they are being created (Fargas-Malet et al, 2010). Some of the children in Noyes' (2008) study had difficulty coming up

with things to talk about in their video diaries and asked for prompts. Noyes (2008) noted that some of the children “played” to the camera in the video diaries, perhaps influenced by the proliferation of the video diary technique in many reality television shows. Additionally, Bragg and Buckingham (2008) note that the phrase ‘diary’ may have gendered connotations that may influence participation.

4.1.6 Participatory activities

Participatory activities include a variety of data collection techniques that are quite different from those traditionally used in research. These activities can take many forms, including decision-making charts, ranking exercises, pots and beans activities (O’Kane, 2008), mapping, timelines, and charts (Fargas-Malet et al., 2010). Examples of participatory activities used in LIS research include card sorting activities to examine how children categorize information (Cooper, 2004; Large et al., 2009), concept mapping in relation to search engines (Bilal & Wang, 2005), collaborative storytelling activities using a “magic plate” (Alborzi et al., 2000), creation and subsequent discussion of post-it notes with children’s likes and dislikes related to books (Druin, 2005), the creation of a computer-based web searching activity (Meyers et al., 2007), designing technologies that would serve to alleviate difficulties encountered in acting as information intermediaries (Fisher et al., 2014). Other examples of participatory activities in research with children include the use of happy and sad face stickers on survey sheets to indicate children’s likes and dislikes in a daycare setting (Kinney, 2005), as well as the creation of maps of where children go on a daily basis, ranking of preference of work tasks, and creation of seasonal calendars in order to understand Nepalese children’s experiences of work (Johnson, Hill, & Sapkota, 2014).

O’Kane (2008) posits that the use of such activities is useful for getting children to discuss “complex and abstract issues” (p. 133). Such activity-based methods can be particularly useful for children with limited literacy (O’Kane, 2008), or who are not comfortable with more typical research methods that rely heavily on talking (Gallagher, 2009). However, Johnson, Hart, et al. (2014) note that these types of activities can easily become researcher-led, rather than driven by the children. Additionally, Gallagher (2009) notes that these types of activities may cause problems at the analysis stage. As O’Kane (2008) notes, it may not be possible to collect data “in a uniform way” using participatory techniques (p. 147). Much like with photography and arts-based approaches, O’Kane (2008) notes that "whilst the activities provide a source of data in themselves... dialogue around the activities provides the richer source of interpretation and meaning" (p. 143).

4.2 Use of multiple methods

Children have indicated that they want to have choice in the research process, not only regarding their decision to participate but also about how they will participate (Hill, 2006). One way to afford them this opportunity is to integrate a variety of data collection methods into the research design, and allow children to opt in or out of the various data collection methods without opting out of the research project in its entirety (Hill, 2006). This has the additional benefit of providing multiple opportunities for children to share their perspectives. As Garbarino and Stott (1992) note, “the more sources of information an adult has about a child, the more likely that adult is to receive the child’s messages properly” (p. 15). Similarly, Darbyshire, MacDougall, and Schiller (2005) argue that including multiple methods can help provide “different yet complementary information about the children's activities” (p. 424).

O’Kane (2008) describes the use of multiple participatory methods in a group activity day setting. Fisher and her colleagues in LIS have also adopted this ‘activity’ day approach in their research, including a study of the information behaviors of ethnic minority youth who act as information mediaries for their families (Fisher et al., 2014) and an exploration of preteens’ everyday life information behaviors (Meyers et al., 2007). Meyers et al. (2007) note that the decision to incorporate multiple data collection activities into a single day resulted from problems with scheduling and concerns over attrition. They posit that the use of multiple and varied methods also helped to prevent the participants from becoming bored over such a lengthy period of data collection (Meyers et al., 2007). Task-centered activities can easily be incorporated into studies making use of multiple methods of data collection. Several different types of task-centered activities can be used within a single research project, as with the work by O’Kane (2008), or a single task-centered activity can be used in conjunction with other methods such as more standard focus groups, interviews, and participant observation. Strategies such as these can help to balance the strengths and weaknesses of any individual task-centered activity.

4.3 Data analysis, interpretation, and dissemination

While many of the research methods described here purport to offer children an enhanced means of participation, Waller and Bitou (2011) note that empowerment is not derived solely from the methods of data collection but also, and perhaps more importantly, from the analysis and interpretation of that data. They argue that it is the co-construction of knowledge through the research process that offers children this empowerment, not simply the use of innovative means of collecting data. Researchers working within the childhood studies paradigm should be committed to interpreting the data in a way that remains true to the children’s perceptions and intentions (Eide & Winger, 2005). Sometimes this may involve children being a part of the data

analysis stage itself. For example, Agosto and Hughes-Hassell (2005) conducted focus groups in which the teen participants helped to create a typology of their information needs, while Buck and Magee (2017) have worked with teens as co-researchers in all stages of the research process, including analysis and dissemination of research findings.

Dorner (2015) argues that children's words should be privileged in articles or reports of research conducted with children. Roberts (2008) similarly notes that children's words should be given prominence, but cautions against their inclusion as illustration only. As Roberts (2008) notes, researchers need to find the balance between listening to children and exploiting them. Member checking, also termed respondent validation (Flewitt, 2005), is one means of helping to ensure the researcher's interpretation has not strayed from the children's intentions (Greene & Hill, 2005). This not only allows the researcher the opportunity to verify his or her interpretations, but also gives the children an opportunity to further clarify statements they have made earlier in the research process (Thomas & O'Kane, 1998). Researchers who engage in member checking should be prepared to respect their participants' reactions. For example, Hill (2005) describes an instance in which a participant asked that a quotation attributed to her be removed from a research report.

Flewitt (2005) and Valentine (1999) argue that the results of research studies should be shared with the children in ways that are accessible to them. After the completion of a participatory research project with older children, Pinter and Zandian (2015) conducted a follow-up session with the children who had participated in an earlier study and showed them the final written product (in this case, a master's dissertation). Pinter and Zandian (2015) note that allowing children to see the research findings can increase their confidence and self-image as they see their views incorporated into and perhaps supported by other research. Sharing of

research results helped the children to more fully understand the research process, and from the researcher's perspective, such follow-up sessions can help to illuminate the limitations of the study and aid in reflexivity (Pinter & Zandian, 2015).

The dissemination of research findings is also an area of ethical concern in research with children. Roberts (2008) argues that researchers should be proactive in making sure their research findings aren't lost in academia. Alderson and Morrow (2011) suggest publishing multiple reports of the research findings for different audiences, and Valentine (1999) suggests asking the children themselves how they think the research findings should be disseminated. In LIS, Fisher et al. (2014) video recorded most of their data collection and used that material to create a film to disseminate the research findings to a broader audience than those who read academic articles. Strategies such as these ensure that children's voices are heard by a range of people who may be in a position to influence children's lives.

5. Conclusion

The reasons to include children in LIS research are theoretical, practical, and moral. Task-centered activities offer one means through which even the youngest of children can participate in research, as demonstrated by their use in studies in LIS and beyond. The application of task-centered activities can help to rectify the underrepresentation of young children in LIS research, and can also help to improve our understanding of the perspectives of children of all ages. Incorporating children's perspectives can also serve to change the type of questions addressed in research in LIS and other related fields. For example, recently Common Sense Media (2017) published their latest findings of children's media use based on parental reports of the activities of 0-8-year-old children. While this valuable report sheds light on the amount of time and the types of activities that parents report their children engaging in with

various forms of media and technology, there are some questions related to children's media and technology use that this report cannot answer. The data gathered for this report cannot explain, for example, why children engage with media and technology, how they think and feel about this engagement, what benefits the children perceive to derive from their use of media and technology, or how they perceive technology fitting in with the other offline aspects of their lives. These are just some of the types of questions that could be addressed using child-centered research methods such as task-centered activities in order to understand the impact of media and technology in the lives of children.

Childhood studies provides researchers interested in children's experiences with both the attitude and the research methods needed to explore these experiences in a way that respects and values children and their perspectives. The utility of task-centered activities for research involving children in LIS has been demonstrated in the examples described throughout. Using a childhood studies approach to research with children affords researchers an opportunity to examine their experiences more deeply and in a different light.

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