Paper Title Digital Show-and-Tell: Facilitating Young Children's Use of the Web in Preschool

Author(s) Christina R. Davidson, Charles Sturt University; Susan J. Danby, Queensland University of Technology

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Purpose

Children's use of the Internet is steadily increasing (Johnson, 2010); even children as young as two years of age access the Internet (Author A, 2009). At home, young children use the Internet for communication, to access information and engage in play activities (Johnson, 2010). Learning with technology at home is frequently "a co-constructed outcome of the activities and cultural practices that children engage in with others" (Plowman, Stevenson, McPake, Stephen, & Adey, 2011, p. 361). Burnett and Wilkinson assert that Internet practices at home are "embedded in life" (2005, p. 159), whereas use of the Internet in educational settings is "practice for the real world" (Burnett & Wilkinson, 2005, p. 159). This differentiation has curriculum and pedagogical implications for how teachers use the Internet in education settings with young children.

Preschool environments are incorporating technology that enables young children's use of the Internet (Livingstone & Tsatsou, 2009). However, there are few studies of young children's use of the Web (Author B et al., 2010; Author A, 2012) and limited attention has been given to date to fine-grained analysis of how children accomplish Web searching or activity that requires its use. Author B et al. (2010) present one of the few studies of young children's Web searching in the preschool context. The researchers found that the children enjoyed using the Web and employed a range of Web searching strategies. They noted also that children were "more constrained in their web searching activities" (p. 202) in the presence of teachers and they recommended further investigations of the need for support from teachers.

Plowman and Stephen (2003, 2005, 2007) provide extensive studies of young children's use of digital technology in preschools and in homes in Scotland. They note that young children in Scottish preschools were frequently described as "playing with computers" (p. 145) and that free play with the technology was emphasized. They argue that children need more expansive experiences with computer technology which teachers should provide through guided interaction (Plowman & Stephen, 2007). Certainly, effective support from educators will overcome constraints that young children experience due to their emergent literacy skills (Wang, Kinzie, McGuire & Pan, 2010). At the same time, educators should promote rich technological experiences rather than limited "drill and skill" computer activities (Lankshear & Knobel, 2003, 2011). Classroom learning experiences that entail authentic uses of digital technology enable educators to address the digital divide (Marsh et al., 2005; Plowman, Stephen & McPake, 2010) or inequitable access to powerful forms of technology use.

The purpose of this paper is to examine some ways that use of the Web was accomplished during interactions between young children and an educator in a preschool. Specifically, we examine how a YouTube video clip was used to generate talk. We show how the teacher and children made connections between their experiences and the YouTube recording, drawing on multi-party talk to produce a conversational show-and-tell (Author B, 2002).

Perspective

The study is informed by the theoretical perspective of ethnomethodology (Garfinkel,1984, 2001), a research approach that seeks to understand the commonsense ways (or methods) that people produce their social activity. Described as the study of "practical action and practical reasoning" (Hester & Francis, 1997, p. 97), ethnomethodology takes a particular interest in the ways that talk documents understandings *and* makes understanding possible during interactions with others. The perspective takes children to be competent in the accomplishment of their social worlds (Author B & Author A, 2007; Hutchby, & Moran-Ellis, 1998) and in the production of social order (Busch, 2011).

An important form of ethnomethodology is conversation analysis (CA). Developed by Harvey Sacks (1995), CA specifically examines the sequential accomplishment of social activity during interaction (Schegloff, 2007). Accordingly, analysts determine what actions are produced through turns in talk, how turns respond to prior talk and become an "environment" for the production of a following turn. Sacks and colleagues (Sacks, Schegloff & Jefferson, 1974) developed a description of the turn-taking system for ordinary conversation and subsequent work through the years has drawn on this.

Conversation analysts prefer to work with naturally occurring data and to develop transcripts using a specific notation system. Jefferson notation (Atkinson & Heritage, 1999) is used to take account of numerous aspects of talk and interaction including intonation, word emphasis, silences between turns at talk and within individual utterances. Such transcripts enable fine-grained description of the ways that things get done through conversation; for example how particular identities are talked into being, how people align or not with others and how power relations are produced through interaction.

Methods

Data analysed are drawn from a large funded project. The study examines the use of digital technology for Web searching in the early childhood settings of home and preschool. Ethical clearance was attained from the relevant University and from the Crèche and Kindergarten Association in the state where the study was conducted. An initial teacher screening survey was employed to determine teachers' use of digital technology in their own lives and in their classroom practices. Teachers were classified on a continuum encompassing "high comfort with technology" to "low comfort with technology". The survey results informed selection of teachers for the next phase of the research. Participation was sought from nine teachers and from parents of the young children in their classrooms. Recordings were made in the classrooms of teachers and children using digital technology to access information from the Web. A smaller number of children were selected for the home recording phase of the study. All children were aged between three and four years of age. The final phase of the study is a large-scale survey of parents (n=3000) about their young children's use of digital technology to access information.

Data sources

Data for this paper are drawn from a video-recording of young children and their teacher using the Web to access YouTube. The teacher had been identified from the survey as showing "high comfort with technology". Once segments of the recording were selected, a transcript was developed and then actions were described on a turn-by-turn basis to form the sequential analysis. The final paper will analyze the accomplishment of a range of activities generated: talk that oriented to the YouTube video, locating YouTube and the specific video, asking for help to locate it, out-loud observations by children as they watched, linking the experience to play activity from the previous week and generating future play activity. Here we present a brief excerpt to illustrate data analysis.

Excerpt: Orienting to the YouTube video

Children were seated on the carpet. Oliver (aged three) and the teacher were located at the computer. The teacher had told the children that they are going to look at a YouTube video that Oliver's family had made. Before locating the video on the Web, the teacher (T) initiated talk with Oliver (O) about his weekend and established that "something terrible" had happened. The teacher's initial turn (1-3) was directed at the class and informed them that Oliver's mother had told her about the drive the family went on, and about the video recording they had made of it. The gap in talk (4) provided a place for Oliver to name this terrible thing and he indicated that he was about to say something (5). The teacher's talk latched (=) or followed Oliver's closely (5-6), however, Oliver then stated what the terrible thing was that happened (7). The teacher's response (9) was a partial repetition of Oliver's turn, although with slightly raised intonation at its end (indicated by use of a comma).This prompted Oliver's agreement (12). The teacher confirmed her own understanding ("okay") and then asked if they would see the car stuck in the mud when they watched the YouTube video (13 and 15)

1 T: <u>yeah</u> (0.2) his mum was telling me (0.4) that when they went
2 for a drive (0.4) something terrible happened (0.4) and they've
3 taken a video
4 (1.0)
5 O: uh=
6 T: =and
7 O: our car dot sh:tuck
8 (1.0)
9 T: your car got stuck,
10 O: yeah
11 J: in the mud,
12 O: yeah
13 T: okay and will be see <u>that</u> (0.4)
14 J: did the

15 T: [on the video?
16 J: [wheels get stuck
17 O: yeah
18 J: did the wheels get stuck?
19 O: mmm yeah
20 T: alright so Oliver come and help me find it,
21 (1.0)

A child (J) seated on the carpet then sought more specific information about the car (14 and 16). It appeared unclear whether Oliver's affirmative (17) was in response to the teacher's question or John's because their talk overlapped (indicated by [ ) and so John repeated his question in full (18). The teacher acknowledged her own hearing of prior talk (okay) and then directed Oliver (20) to help her find the YouTube recording (on the Web). So, she brought their activity back to the search of the Web.

Results and conclusions

The final paper will establish how talk about YouTube accomplished a kind of show-and-tell, how connections were made between use of technology and children's previous experiences, and the ways that multi-party talk enabled all children to engage with the Web activity. Discussion that follows here is indicative.

Oliver produced a kind of show-and-tell (Author B, 2002) about his family and their weekend. His talk was indexed to the YouTube recording which enabled him to provide additional information, answer questions and ask questions of other. The recording itself enabled the teacher and individual children to seek clarification and to provide responses through gestures and facial expressions to actions that were on the screen and in addition to what they had been told by Oliver. The show-and-tell provided the children and teacher with new information about Oliver and they returned to view the YouTube recording during the course of the research project.

Importantly, the teacher and children made connections between their own experiences and use of the Web and YouTube. The teacher's talk in particular was designed to draw children into the activity through questioning that was addressed at individuals and at the cohort. Clearly, she knew beforehand what had been recorded and yet she used talk, particularly intonation and word choice (e.g. "something terrible"), to build anticipation and to orient all the children to Oliver's particular experiences by withholding information. Later in the lesson, she went on to ask children to remember their individual play activities from the previous week that had focused on road workers. The children then speculated about what would have happened if road workers had been able to warn Oliver's family about the mud.

To participate in the multi-party talk, the children and teacher managed several aspects of interaction. For example, children needed to hear spaces in the interaction where they could

legitimately contribute. Oliver had to hear talk as being directed at him by the teacher or by individual students. He also needed to hear when the teacher's talk returned to two-party talk with him, or when her talk was *about* him and directed at the rest of the children. Thus the talk that lead to the viewing, and contributed to it, required that children competently produce and respond to a complexity of spoken and visual actions.

Scientific or scholarly significance of the study or work

There are few studies of the ways that teachers support young children's use of digital technology in preschools. This paper addresses that absence through detailed fine-grained analysis of some of the ways that young children and a teacher interacted during use of the Web. The focus on the social accomplishment of their activity enables description and explication of practices. In particular, the study illustrates some of the ways that educators might create learning possibilities for young children. It suggests that preschool teachers have an important role to play in ensuring that all children develop skills and strategies necessarily for accessing information in today's digital world.

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