Young children, family life and interactions around interactive digital technologies

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One approach to developing an understanding the impact of interactive digital technologies on children’s learning is through studying the variety of their experiences of such technologies. In this paper, the approach taken to studying children’s experience is a sociocultural one, which holds that learning involves a deepening process of participation in a community of practice (e.g. Lave and Wenger, 1991). The starting point is the assumption that interactive digital technologies feature amongst the everyday paraphernalia of the home. Children witness talk that refers to interactive digital technologies; they notice, watch, and listen to other people using them, and they negotiate their own involvement in other peoples’ use. Regardless of whether or not there is consistency between young children’s access to technologies, (for example, where all families own a computer with a broadband connection and all children own the same digital toy), there is likely to be variation between families in terms of the nature and frequency of use of interactive digital technologies, the way that they are talked about, and the way that family members approach shared use with young children. There is, therefore, potential for considerable diversity between the experiences of different children.

The research presented in this symposium is taken from case studies of four families with preschool children, in which data collection consisted of interviews, visits and video recordings. The foci were the arrangements for children to participate in the use of interactive digital artefacts through observation, solitary use and shared use with other people, and on the nature of interaction between children as they used those artefacts with others. The interactive digital technologies studied were those that the family already possessed; some were designed for young children’s use, and some were not. The research demonstrates how the nature of the designed artefact intersects with family practices and priorities, and how the nature of the social interaction thus framed shaped the child’s opportunities for learning.

Three of the four case study families owned a LeapPad or V-tech Laptop, devices which are known as Electronic Learning Aids (ELA) (Shuler, 2009). The children in these families also used digital games, using computers or laptops. Analysis of video revealed that misunderstandings took place during shared use of ELAs but did not occur during digital games. This phenomenon appears to relate to adults’ and childrens’ experience of related activity.

The analysis of activities involving ELAs revealed children making meaning of the activity in terms of communicative patterns with which they were familiar, such as taking turns to make a noise or produce an effect. These emerging interpretations contrasted with those of the adults, which were consistent with the activities designed into the artefacts, activities which required the user to engage in patterns of interaction that are associated with educational settings. In contrast, children understood digital games on screen-based technologies in much the same way as their parents did, consistent with the observation that the course of everyday life, these very young children had had opportunities to observe, and to develop an understanding the genres of games, and the role of players.

A further observation was that the use of the artefact (whether ELA or game) was frequently, though not always, treated by adults as an opportunity to show, or support, the child in learning ‘the right way’ of using the artefact. This was a context in which the child’s questions and contributions to meaning-making were treated as extraneous to the task in hand or as erroneous.

The study makes two contributions to the debate about design. First, it seems to be important to consider the relationship between activities that technologies aim to provide or to support, and the activities with interactive digital technologies that feature in the course of the child’s everyday experience. Second, there may be value in focusing on ways in which adults might be encouraged to attend to children’s
contributions and to develop the activity in more exploratory ways, rather than focus on the ‘right way’ of doing something.

References:


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