

# Exploring Play and Creativity in Pre-Schoolers' Use of Apps

Report for Policy Makers



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## EXPLORING PLAY AND CREATIVITY IN PRE-SCHOOL CHILDREN'S USE OF APPS

### POLICY BRIEFING

This briefing reports on the outcomes of a study of young children's (aged 0-5) use of apps on tablets. The data were collected through a survey of 2000 parents of 0-5 year olds that had at least one tablet in the household, case studies of six families with children aged 0-5, over 20 hours of video of 12 children aged 3-5 using apps and an analysis of the most popular apps for children of this age group.

The study, funded under the ESRC Knowledge Exchange programme (Grant Number ES/M006409/1), was conducted by a partnership of academics, a public broadcaster for children (CBeebies), teachers and professionals from the children's media industry.

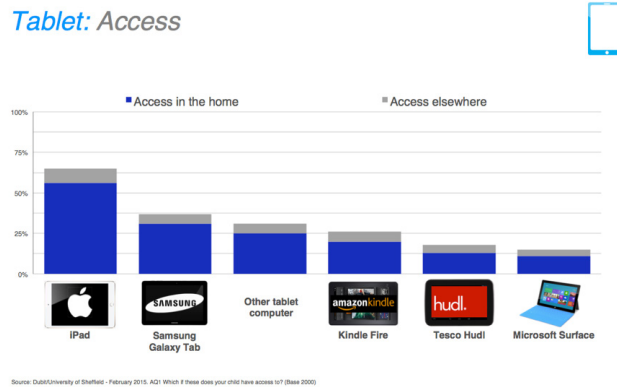
This briefing identifies the key implications of the project for policy.

### KEY FINDINGS

#### Access and Patterns of Use

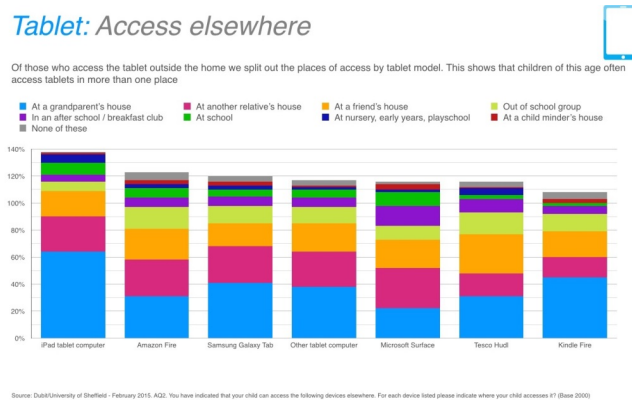
- 31% of under 5s in homes that have access to tablets own their own tablet (25% of under 3's and 37% of 3-5s in the survey owned their own tablet).
- Children were more likely to have access to an iPad than other types of tablets in the home (see Figure 1).

**Figure 1: Access to different types of tablets**



- Children were more likely to be reported using the tablet with a parent or guardian (57%) than on their own (35%), although more independent use was reported at the beginning and end of the day.
- On a typical weekday, children of this age group use a tablet for a mean of 1 hour and 19 minutes and on a weekday for an average of 1 hour 23 minutes. Use peaks between 4pm – 6pm on weekdays, but is more evenly spread across the day at weekends.
- Families in social class groups ABC1 were more likely to purchase apps for children than families in social class groups C2DE. This means that children in homes with less economic capital are more likely to be subject to apps that contain in-app purchases and advertising.
- Only 3% of parents reported that their children had access to a tablet at school, nursery/ pre-school setting or childminders' home.
- Children were most likely to have access to a tablet at a grandparents' or other relatives' house outside of their own home (see Figure 2).

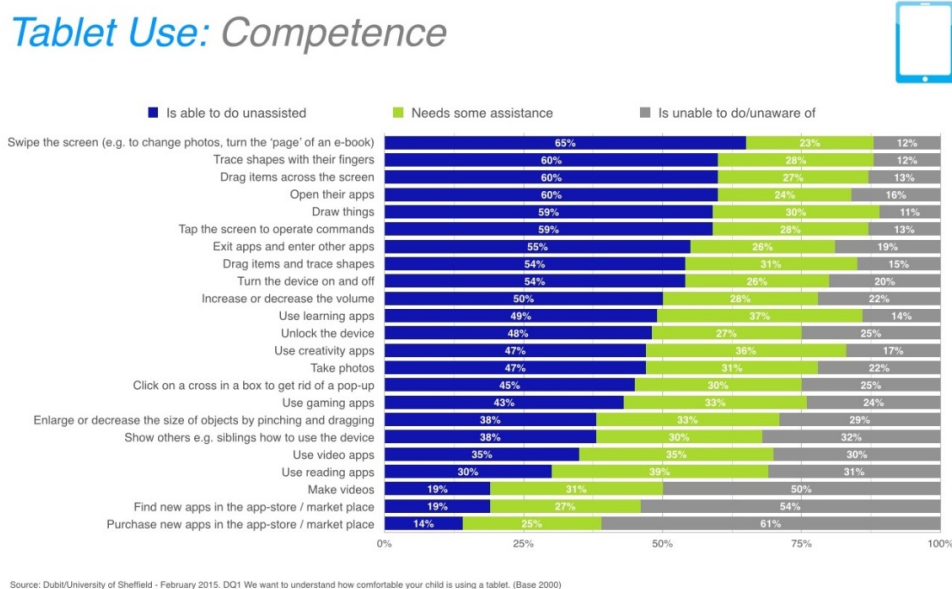
**Figure 2: Children's access to tablets outside of the home**



## What do children do when using tablets?

- Children use the tablet to watch television (catch-up and streaming services), films, play games, listen to music, draw and paint, play games, create virtual worlds, look after pets, dress up avatars and engage in role play.
- Over half of children aged 0-5 can do the following unassisted: swipe the screen; trace shapes with their fingers; drag items across the screen; open their apps; draw things; tap the screen to operate commands; exit apps and enter other apps; drag items; turn the device on and off. (See Figure 3)

Figure 3: Children's competences when using tablets



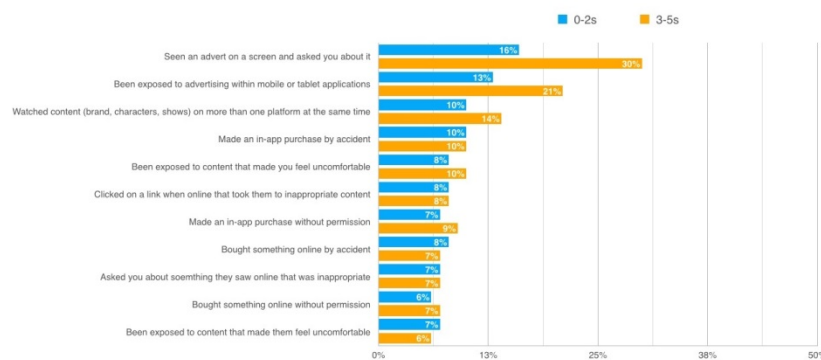
- Children's top ten favourite apps are: 1. YouTube; 2. CBeebies (Playtime and Storytime); 3. Angry Birds; 4. Talking Tom (and similar); 5. Peppa's Paintbox; 6. Temple Run; 7. Minecraft; 8. Disney (general); 9. Candy Crush Saga; 10. Toca Boca (general).
- These apps promoted a range of play and creativity. However, apps aimed at an older age range (Angry Birds and Candy Crush Saga) promoted a narrow range of types of play and creative thinking and are not suited to the pre-school audience. This genre of games is more likely to be played by children in social groups C2DE than social groups ABC1.

## Safety and guidance

- Some apps that contain in-app purchases and in-app advertising prove difficult for under 5s to use because they are not able to disable these features effectively.
- 6% of children have been exposed to content that made them feel uncomfortable, 9% have been exposed to content that made parents uncomfortable and 10% have made an in-app purchase by accident. (See Figure 4).

Figure 4: Children’s experiences when using apps

### App interactions



Source: Dublin/University of Sheffield - February 2015. D02 Has your child ever? (Base 2000)

- Parents do not always utilise safety settings of tablets and apps. This is of concern, given that some parents are not aware of how children can get online through the use of some apps.
- Parents would like more support on how to help their child use tablets, and guidance on which apps are most suitable for pre-school children.

## IMPLICATIONS FOR POLICY

- Given the extent to which **under 3s** who live in households with tablets use them, there should be further support and guidance for parents of this age group offered by health visitors, parenting organisations, childminders and early years settings on how to choose apps for this age group and how to support children in using them.
- Family digital literacy programmes should be developed which can be offered by early years settings and schools to ensure **all parents have an opportunity to learn how to support their children's use of tablets**.
- Parents need further guidance and support on **choosing apps** for their young children. This guidance could be offered online, through parent organisations that are effective in reaching families across socio-economic and ethnic groups.
- All parents of pre-school children who have access to tablets and smartphones need to be made aware of the need to employ safety settings to ensure **safe access** to the internet.
- More **early years settings** need to ensure pre-school children have access to tablets. This should include creative use (making books, films etc.), given that not all children are supported in creative uses of the tablet in the home.
- Initial **training for early years professionals** should include guidance on how to use tablets effectively and how to choose suitable apps.
- Whilst the Office of Fair Trading's (2014) principles for app designers' use of **in-app purchases** are helpful, they could differentiate further for the development of apps for children aged 5 and under. This age group are less likely to be able to manage in-app advertising/ invitations for purchase as effectively as older children and, therefore, consideration needs to be given by app developers of the extent to which such advertising/ purchasing activity disrupts game play for under 5s.

For the full findings of the study, see: <http://www.techandplay.org>

### Citation

Marsh, J., Plowman, L., Yamada-Rice, D., Bishop, J., Lahmar, J., Scott, F., Davenport, A., Davis, S., French, K., Piras, M., Robinson, P., Thornhill, S., Winter, P. (2015) *Exploring Play and Creativity in Pre-School Children's Use of Apps. Policy Briefing*. <http://www.techandplay.org>