



Play and Technology for children aged 4-12

1. What is the study's background?

This study was funded by the Office of the Minister for Children and Youth Affairs (now the Department of Children and Youth Affairs) under the National Children's Research Programme. The study was undertaken by Stella Downey, Noirín Hayes and Brian O'Neill of the Centre for Social and Educational Research, Dublin Institute of Technology.* The report was independently peer-reviewed and published in 2007.

2. What is the study's purpose?

The aim of the research was to examine how technology impacts on the play of children in Ireland and what children are saying about the role of technology in their lives. The research investigated the play activities of two age groups (4-8 year-olds and 8-12 year-olds) and explored what technology in play meant for them. The views of parents and teachers were also sought as part of the research.

The specific research objectives were:

- » to identify the kinds of technologies present in the daily lives of children;
- » to identify the principal patterns of technology use;
- » to examine the extent to which technology features in children's everyday play;
- » to investigate whether there are significant geographic and social differences in children's use of technology;
- » to examine what technology and play means to children, parents and teachers;
- » to make recommendations on how children's perspectives might have a role in informing policy in relation to play and technology.

This briefing note summarises the method of research, key findings, conclusions and recommendations of the study. The full report is available on www.dcyia.ie

3. How was the study undertaken?

The research involved a survey and focus groups with 292 children aged 4-12 years in 10 primary schools from all over Ireland. The sample was a purposive one, with 139 children (48%) in the younger age group (4-8 years) and 153 children in the older age group (8-12 years). Participants were recruited from 10 primary schools in various parts of the country, reflecting urban, rural, gender and socio-economic variations. Baseline information on access to and use of technology was collected through a questionnaire. Focus groups were held with the older age group (8-12 years). Discussions in groups of 6 in each of the schools explored topics about play in general, children's use of all forms of technology (including mobile phones, computers and video games) and what they felt was most important to them in playing alone or with friends.

4. What are the key findings?

Technology features in the play activities of all children, both urban and rural. All children use mobile phones, the Internet, games consoles and television in much the same way. Television is the most used leisure technology. Although both boys and girls play console/video games, they are more popular with boys. All children prefer to play these games against someone else.

Children also like outdoor activities and prefer to play with friends. As they get older, their use of technology increases. The weather, time of year and availability of playmates influence the leisure/technology choices they make.

* The views expressed in this report are those of the authors and not necessarily those of the Department of Children and Youth Affairs.

4.1 Viewing TV and films

- » Most children said they prefer to be outdoors, engaged in other activities, such as sports, farming or playing with animals, rather than watching television. Weather and time of day were factors that influenced when TV was viewed.
- » Most children watch a good deal of TV, influenced by such factors as after-school daylight hours/weekends, weather, appropriate leisure facilities and parental concerns/schedules. One child described a typical day: *'I do my homework, watch telly, play, watch more telly, then go to bed.'*
- » The most popular TV genre watched by children is comedy. The same shows were frequently named across the range of schools taking part in the study.
- » Soap operas are popular, particularly with girls. So also are popular vote shows, although only a small number of children said they had actually cast votes.
- » Some girls mentioned liking horror or scary films, which children described as being 'funny'.

4.2 Console games

- » All of the children surveyed had tried console games, although not everyone liked them. Almost all had PlayStations.
- » Many children had seen, if not played, games that were rated much higher than their own age, including action and adventure games, some of which were thought to be opportunities for 'fun'.
- » Although some borrowed games belonging to an older sibling or cousin, others said that these games were bought for them by a parent or a relative.

4.3 Mobile phones

- » 59% of children in the older age group (8-12 years) said they owned a mobile phone. Of those who did not already own one, most wanted one. Some children said they would ask for one for a special occasion, such as a birthday.
- » Texting is by far the most popular and prevalent use of the phone. This mostly involves simply keeping in touch with friends (to gossip, discuss homework), letting friends know that you were on the way over to visit or to contact a parent to arrange collection from a friend's home.
- » Most children had pre-pay phones (only one child specified that he had a bill phone).

- » Parents, especially mothers, were the ones who paid for phone credit (i.e. it did not come out of pocket money). Some children estimated that they could spend between €5 and €10 a week in credit.
- » Some children had the phones in case of emergency only.
- » 'Pranking' was mentioned as a popular activity. This was described as sending silly text messages or, more often, phoning numbers to make what were known as 'nuisance calls'. For most children, this was considered harmless fun or as a means of wasting credit.
- » Quite a few children said that they played the games installed on the mobile phones.
- » Downloading ring tones and games was thought to be a waste of credit. Although most had done it, it was considered expensive.

4.4 Using the Internet

- » Many children reported that they had access to and used the Internet. A wide range of activities was involved and a capacity to source the information desired was evident. The most frequently described activities were to listen to music (rather than download it), to check out websites of interest (e.g. bands or sports organisations such as the GAA) and to look up game cheats.
- » Another use of the Internet was to research projects for school. One of the suggestions here was that if a project was unfinished, printing straight out from a website was a quick and simple means of completing the assignment (e.g. *'If you've a couple of pages left in a project, you can print it straight out.'*)
- » Children were very aware of safety and security issues on the Internet. They understood and spoke about the risk of viruses and taking care with e-mail. Although some children discussed chat rooms, none said that they used them regularly. Several said that they would not use real names or contact details online.

4.5 Children as technology experts

- » Children in the study were not intimidated by any technology. Children often teach parents how to do something on the computer or how to work the PlayStation.

- » Most parents reported a reasonably moderate or high rate of expertise with most technologies. Most said that they were familiar with mobile phones, although many rated themselves lower in terms of texting, downloads, games and handling photographs. One area where there was little parental expertise or interest was in console games.

4.6 Other play activities

- » Sports are widely popular, with soccer, football (GAA) and hurling being the main ones listed. In rural areas, playing with animals is important.
- » Shopping is a popular leisure pursuit for lots of children, especially girls. One girl described her ideal leisure pursuits as '40% TV and 50% shopping'.
- » Some children mentioned reading as a pastime, but others disliked it. (Books were present in over 80% of all children's rooms.)

4.7 Parental rules

- » Most children surveyed have regular routines during school term, involving homework and eating dinner before being allowed to play or watch TV.
- » There was great variation in 'house' rules about TV viewing, game playing and Internet/computer use. The most common rules were time limitations or doing homework and having dinner before watching TV.
- » Most parents (66%) disapproved of children having TVs or computers in their bedrooms.
- » 37% of children surveyed said they had TVs in their rooms.
- » The main concern for parents was what children might be watching and the difficulty of supervising a child's viewing, as well as monitoring the time spent watching.
- » Of those with TVs in their bedrooms, a minority said that they obeyed the curfew. Most said they did not have a curfew or they disobeyed it.
- » Children in both urban and rural schools said that they were not supposed to watch TV on weekday mornings because it delayed them in getting ready for school.

4.8 Parents' views on children's use of technology

- » All parents agreed that technology played a big part in their children's play activities. Many said that the weather can be a factor in increasing indoor play and that technology is a natural fall-back.
- » Most parents said they could see both the advantages and disadvantages of technology in play. Some parents commented on the need to be involved and that using technology for entertainment needs to be monitored, with parents reporting awareness of what their children are being exposed to.
- » Some parents felt it important for children 'to get into technology at a young age' because it will be a part of their adult world and their childhood experiences will help to prepare them. Several parents argued that technology in play helps children to develop new skills and pointed to the range of educational programmes available and how they can help with a child's developing knowledge.
- » Some parents felt that technology plays 'too big a part' in children's leisure and 'can take over'. Some worried about their children's lack of activity, becoming too sedentary and being indoors too much.
- » Several parents referred to traditional games not being played anymore and one said that technology had taken a lot of the fun out of play. There is a fear that children turn to technology for entertainment rather than to reading or to using their imagination in playing games.

4.9 Teachers' views on children's use of technology

- » Teachers reported a high level of access to technology at school for both children and staff. In all cases, children's use of computers in the school setting is highly supervised, especially when the Internet is being accessed.
- » Some teachers argued that playing outdoors and being involved in various clubs and after-school activities were more important to children in this age group, with TV dominating the less active leisure time. Others said that there was either more of a mix or that more children were very sedentary, citing TV, computers and console games as popular pastimes.

5. What are the conclusions?

The study reached the following overall conclusions:

1. **Children enjoy a wide range of access to technology at home.**

Technologies are omnipresent in Irish children's lives. Mirroring international trends, a discernible 'bedroom culture' is evident among a sizeable minority of Irish children, particularly among older children. Children are very confident about using technology, again a trend that increases with age. They are also aware about self-protection online and appear to have absorbed the messages about the potential dangers of online activity. Children view screen-based violence or horror through a different lens to most adults and are not concerned about its potential effects.

2. **Given the choice, most children prefer to be with their friends and active outdoors.**

Active outdoor play is popular with both urban and rural children. Ball games and chasing games were the top two choices for both, with console games in third position. Younger children followed the same pattern, although older children rated console games in the middle. With age, interest seems to wane in outdoor pursuits, with TV and console games gaining importance. This seems to be true for both urban and rural children, as well as in terms of gender. Console games are a particular favourite social activity with older boys. Communication with friends seems to be particularly important for girls, again becoming more so with age.

3. **If playing alone, urban children are less likely to play outside than rural children.**

When they are on their own, all children are more likely to turn to technology-based entertainment. For urban children, the top three responses were TV, console games and reading. For rural children, they were console games, TV and playing with toys. Girls chose TV most frequently, with console games and reading at the same percentage. Boys chose console games, TV and outdoor games most often. As with the general trend towards screen-based entertainment, the interest level seems to rise with age: younger children most frequently answered that they played with toys,

watched TV and played console games, whereas older children said they played console games, watched TV and read.

4. **Siblings provide many opportunities for play, as well as for learning about technology in play.**

Over 91% of the children in the survey grew up with at least one brother or sister. For 61% of these, there was an older sibling to offer some degree of influence, although there are examples of younger children influencing their elder siblings.

5. **Adults are concerned about ensuring that their children's play is balanced in terms of the range of activities.**

Parents and teachers expressed concern about the prevalence of technology in children's leisure. They voiced concern about the impact on children's imaginations, fearing that their creative play could be suffering. Several teachers mentioned developmental delays (such as language acquisition), attributed to screen entertainment, that they thought affected children's socialisation. As a counter-argument, at least one parent said technology had enabled her son to socialise where he had previously been unsuccessful. Both sets of adults, however, saw some educational potential in technology. Parents, in particular, were anxious that their children acquire the skills necessary to operate in a technological world. While the majority of parents and teachers expressed the opinion that technology, particularly TV, in a child's room could be problematic, the rationale used differed. Parents were concerned about their ability to monitor the content or type of a child's viewing, whereas teachers spoke about tiredness, inability to concentrate at school and expectations of entertainment being carried into the classroom.

6. **Digital differences rather than digital divide.**

The highest levels of ownership of technological possessions, particularly in regard to the presence of technology in the *child's own room*, were almost always with children from the designated 'disadvantaged' urban schools. However, the presence of computers and the Internet *in the home* were recorded as lower in the designated 'disadvantaged' urban schools compared to most other schools.

6. What are the recommendations?

A number of recommendations arise from the research, as follows:

1. Support for active outdoor play needs to be strengthened

The strong preference for active outdoor play reported provides major support and endorsement of the strategic objectives of the National Play Policy, in particular Objective 3 (*To ensure that children's play needs are met through the development of a child-friendly environment*) and Objective 4 (*To maximise the range of public play opportunities available to children, particularly children who are marginalised or disadvantaged or who have a disability*). However, further engagement with older children, particularly girls, may be necessary to encourage more active play activities.

2. Awareness of games classification and Internet safety needs to be enhanced

There is relatively little awareness of the statutory and non-statutory regulatory frameworks in Ireland for digital media content, console games, DVDs and videos, and online content. Ratings systems for software are often not heeded. There was no awareness of the Hotline provided by the Internet Service Providers Association of Ireland (available at www.hotline.ie) for the reporting of child pornography. Nor was there any apparent awareness of the Internet Advisory Board (available at www.iab.ie), which provides awareness of online safety.

3. Investment in information and communications technologies (ICTs) in schools should be increased

With relatively high levels of computer technology in the home, schools by contrast appear to have far fewer resources. While it was not formally studied in this research, schools in many instances appeared to have just one computer in the classroom and of a lower specification than many children would have at home. The deployment of computers in schools has been, and will continue to be, a major focus of public policy and, as such, the adequate resourcing of such programmes is necessary.

4. Learning resources for adults on technologies and ICTs should be more widely available

In addition to adequate levels of computers, whether in the home or at school, there is also a major requirement for carefully designed information packages about ICTs for parents, teachers and others working with children. It was clear from the research that parents in many cases were unaware of, or lacked confidence in, educational applications of computer technology or Internet-based educational content.

5. More policy attention needs to be given to the benefits of technology for children

There also needs to be greater emphasis given at policy level to the potential of technology to enrich children's development. It is not just an issue of wider access to technological resources, whether at home or in school. What is important is the context in which technology is understood and the vision for realising its benefits in education, recreation and social life.

7. What are the benefits of the study?

This study provides three main benefits. First, it highlights an important aspect of children's lives today that has been insufficiently researched to date. Technology, as the report shows, is ever present in children's lives, yet available data for how children use it and what it means to them is very limited. Secondly, the research provides some important guidance for policy-makers, in particular on those features of policy that impact on children's opportunities for learning, leisure and entertainment as mediated by technology. In addition to these implications for Government, there are also implications for teachers, parents and caregivers. Finally, the study highlights a range of important topics for future research. Some of the questions that require further investigation include:

- » What role do siblings play in mediating opportunities for children in relation to technology?
- » What is the extent of the generational gap between children and adults in relation to technology?



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Check out **www.dcy.ie** for full report of study

- » What are the factors governing children's access to and use of outdoor play opportunities?
- » What critical media literacy skills do children have in their engagement with media content more generally?
- » What role does socio-economic status play in relation to ownership, access and use of technology?