

VIRTUAL LIVES:

Is screen time guidance needed for
children in Northern Ireland?

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VIRTUAL LIVES: CONTENTS

EXECUTIVE SUMMARY	3
CHAPTER 1: INTRODUCTION	6
CHAPTER 2: PURPOSE	11
CHAPTER 3: METHODS	16
CHAPTER 4	21
KEY FINDING 1	24
KEY FINDING 2	28
KEY FINDING 3	30
KEY FINDING 4	32
KEY FINDING 5	36
KEY FINDING 6	43
KEY FINDING 7	46
KEY FINDING 8	49
CONCLUSIONS	51
RECOMMENDATIONS	56
REFERENCES	57

EXECUTIVE SUMMARY

This report provides an analysis and evaluation of the amount of time children in Northern Ireland spend online, how parents view the time spent online as being either positive or negative, it also establishes if the parents have been given any guidance on the amount of screen time their children should have and how they have been responding to the management of their children's screen time.

Methods of analysis include both quantitative and qualitative data regarding children's screen time use at home during the week and at the weekend was collected in this mixed methods approach. Data was collected from parents and from teachers. A total of 112 parents completed the survey, providing data for 186 children from ages 4 to 15. Interviews were held with 4 teachers.

Results of the data analysed show that parents feel their children are spending too much time using screens and it is impacting upon their health and social interaction. The amount of time children are spending on screens ranges from 11 hours to 34 hours per week depending on age.

The report also finds that screens are having a negative impact upon a child's social and family interaction with 63% of parents saying they had a concern regarding their child's screen use. In particular, key finding 3 highlights the negative impact upon the health and well-being of children with parents highlighting the negative mood, attitude and tiredness of their children from too much screen time.

The amount of time children spend using screens increases during the weekend for all children with parents uncertain



THE AMOUNT OF TIME CHILDREN ARE SPENDING ON SCREENS RANGES FROM 11 HOURS TO 34 HOURS PER WEEK DEPENDING ON AGE



BOYS SPEND MORE TIME USING SCREENS THAN GIRLS



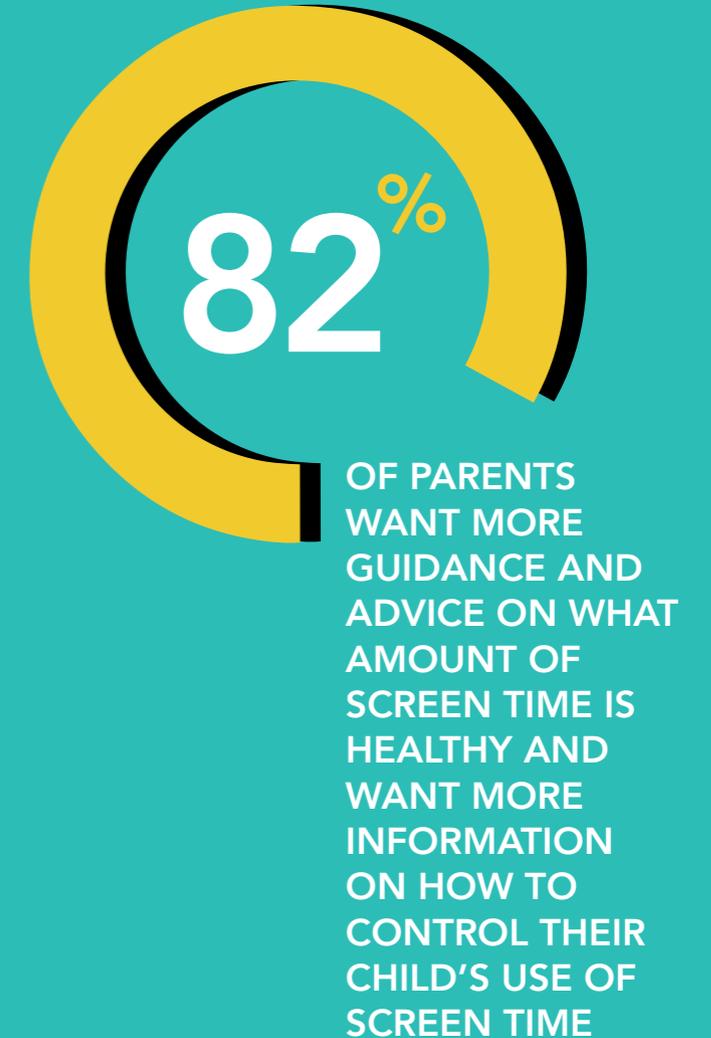
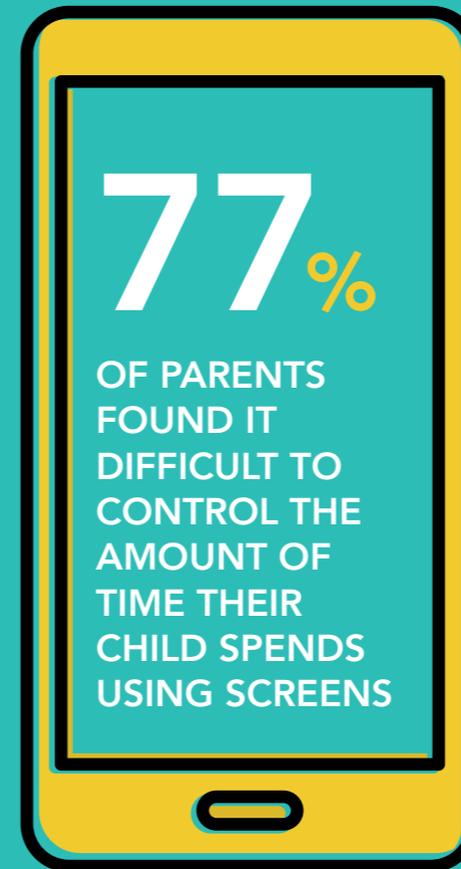
as to the exact amount of time their children spend using screens. Eighty-eight per cent of parents did not know how much time their children spent using screens in school.

Boys spend more time using screens than girls. Moreover, there is a difference in the types of devices used by girls and boys.

Overall parents found it difficult to control the amount of time their child spends using screens with 77% wanting their children to spend a little or a lot less time using screens.

The research also showed that parents are using a variety of negotiation tools as part of their approach to control screen time from limiting the time their child spends online manually to using a service that limits their child's screen time.

A total of 82% of parents want more guidance and advice on what amount of screen time is healthy and want more information on how to control their child's use of screen time.



RECOMMENDATIONS

DRAWING FROM THE FINDINGS OF THIS RESEARCH,
A NUMBER OF KEY POLICY RECOMMENDATIONS HAVE BEEN IDENTIFIED:

1

The Department of Health and the Public Health Agency should issue guidance on the appropriate amount of screen time for all children and young people. This should be given to all parents and carers.

2

The Department of Education should introduce guidance based on best practice for Sure Starts, pre-school settings, and all schools on the appropriate amount of screen time for children and young people taking in to consideration how much time children and young people already spend using screens at home.

3

Training for teachers, health care professionals and across all other disciplines including the community and voluntary sector to raise awareness of the risks associated with too much screen time. This training should also be reviewed on a regular basis as new research emerges.

4

An appropriate cross departmental strategy should be developed to assist parents and carers to:

- » Understand the health and well-being risks associated with screen time.
- » Raise awareness of the techniques and software most effective to limit screen time use.

CHAPTER 1



INTRODUCTION

The internet, social media and, screen time is part of everyday life as the various platforms provide a range of uses from discussion, news, collaboration, sharing and interacting. This is possible from a variety of devices such as computers, laptops, tablets, game consoles and smart phones and can be done from anywhere around the world.

As technology continues to advance, the use of it has increasingly become a way to entertain, to make tasks easier and to educate children and young people. Moreover, many schools are deciding to use part of their budget on updating their technology and making use of tablets in lesson plans. Indeed, the UK Government outlined the potential benefits to educators using technology in the classroom (Morgan, 2016) noting that they will be “championing the teaching of coding throughout each key stage.” They have also committed to an investment of £1.3 billion to provide broadband throughout the country.

The purpose of this study was to investigate the amount of time children in Northern Ireland spend online (at home and in the classroom), how parents view the time spent online as being either positive or negative, establish if they have been given any guidance on the amount of screen time children should have and how they are responding to the management of their children’s screen time.

NEED FOR STUDY

Given the anecdotal comments received from parents who attended Cyber Safety workshops held by Children in Northern Ireland, parents appeared to be struggling to navigate the amount of time their children spend using screens.

New guidelines from the American Academy of Paediatrics recommend that for children 2 to 5 years of age, screen time should be limited to one hour per day. For children aged 6 and older, parents can determine the restrictions for time spent using screens, as well as continually monitor the types of digital media their children use (American Academy of Paediatrics, 2016). They also highlighted that babies are most vulnerable to screens. Furthermore, recommending infants aged 18 months and younger should not be exposed to any digital media.

Research conducted by the University of Bristol (Page AS et al, 2010), which involved more than 1,000 children aged around 10, found that children who spend longer than two hours a day in front of a computer or TV are more likely to suffer psychological difficulties than other youngsters. The researchers suggested that a two-hour screen limit per day was a sensible guideline.

The link between mental health issues and online use is starting to become an area of emerging research, however there appears to be conflicting evidence. A Canadian study (Sampasa-Kanyinga et al, 2015) found that young people who identified with a mental health concern spent more time on average online than those who didn't; however, they also found that excessive online use tended to exacerbate the issue.

Print media have reported an increase in sites dedicated to suicide, self-harm and eating disorders; already vulnerable young people with a mental health disorder who access such sites may therefore face increased risk.

The implication of this is that advice on the amount of screen time to help guide parents is limited, although the National Institute for Care and Health Excellence (NICE) advises (in relation to TV) the use of "TV free days" and "setting a limit to watch TV for no more than 2 hours a day."

Moreover, the NHS Choices website gives tips 'to help your child get a good night's sleep' by recommending that screens should be avoided in the bedroom.



2-5 YRS

PAEDIATRICS RECOMMEND THAT FOR CHILDREN 2 TO 5 YEARS OF AGE, SCREEN TIME SHOULD BE LIMITED TO ONE HOUR PER DAY

OFCOM completed a survey in England during 2015 that showed the amount of time children spent online doubled between 2005 to 2015 from 6.2 hours to 15 hours per week. Furthermore, the Department of Education (England) released a press release in 2015 introducing new measures to keep children safe online at school and at home (OFCOM, 2015).

The Department of Education NI (2015) released safeguarding measures for keeping children safe online and acceptable use of the internet and digital technologies.

Advice to schools and parents relating to the internet, digital media and screen time appears to overwhelmingly focus on the risks and harms and keeping children safe. The Safeguarding Board for Northern Ireland commissioned research in 2014 exploring e-safety messages to young people, parents, and practitioners in Northern Ireland (Safeguarding Board for Northern Ireland, 2014). According to the report an analysis of e-safety messaging involved several themes which were cyber bullying, use of mobile phones, sexting, online grooming and privacy and personal information.

The Northern Ireland Executive through the Early Intervention Transformation Programme developed a resource for parents relating to their child at 3 years. The advice suggests limiting screen time to less than two hours per day (Northern Ireland Executive). Noting that more than 2 hours screen time can impact on a child's concentration, behaviour, sleep and increases the risk of obesity.

Conversely, the Public Health Agency published an information book for parents, Birth to Five (2016) suggesting that 'there's no definitive piece of research that proves looking at a computer or TV screen is either good or bad for young children'. Advising parents that 'it seems safe to say that using technology in moderation is the key.'

In December 2016, educationalists, psychologists and authors called for the UK Government to introduce national guidelines on the use of screens. It was prompted by what they refer to as the "increasingly toxic nature of childhood". Citing the decline in outdoor play and an increase in screen-based lifestyles (Guardian, 2016).



RESEARCH QUESTIONS

The main research questions for this study asks:

- » What amount of time do children in Northern Ireland spend using screens?
- » What guidance do parents receive on the amount of acceptable screen time?
- » How are parents responding in the management of their child's screen time?
- » Should we be limiting the amount of screen time for children?

RESEARCH QUESTIONS

Both quantitative and qualitative data regarding children's screen time use at home during the week and at the weekend was collected in this mixed methods approach. Data was collected from parents and teachers.

The quantitative survey comprised section one which gathered demographic information as well as general information about the family including the number of children, their age and gender. Section Two asked parents to detail the amount of time each child within their family spent using screens broken down by device. In Section Three, parents were asked to respond to several questions about their knowledge of screen time guidance. Finally, Section Four asked parents to detail how they mediate the use of screens.

DEFINITION OF TERMS

SCREEN TIME

Screen time, for the purposes of this study, will be TV viewing, game console playing, laptop, desk top computer, tablet and smart/mobile phone.

SOCIAL MEDIA

Social media – websites and applications where users can upload, view and share content and communicate i.e. Twitter, Facebook, Instagram, YouTube, SnapChat.

CHAPTER 2



LITERATURE REVIEW

The literature review begins with an overview of research conducted in the use of screens by children, followed by a deeper review of factors relating to and the relationship between screen time and the issues surrounding the use of screens. The literature review concludes with a brief overview of the emerging themes depicting the relationships between screen use and issues for children and parents.

OVERVIEW

It is difficult to miss how much technology has changed our lives over the past decade. With that, technology and screen time plays a significant role in children's lives.

Screen time on various devices has provided significant opportunities for children at home and in school for learning, creativity, entertainment and socialising.

Research conducted in 2016 showed that in Northern Ireland 82 per cent of households had access to the internet (ONS, 2013). It is anticipated that by 2021 this will have reached saturation coverage.

In addition to personal computers, children are increasing screen time through many platforms such as smartphones, games consoles, smart TVs, TVs and tablets in the home and at school.

OFCOM (2014) research reported that 65% of children aged between 12 and 15 years of age owned a smartphone; the amount of time 8-11s and 12-15s spend online has more than doubled since 2005 from 4.4 hours a week in 2005 to 11.1 hours in 2015 for 8-11s and from 8 hours to 18.9 for 12-15s; and half of parents of 5-15s with home broadband use time-limiting software to manage their child's online access.



FACTORS RELATED TO USING SCREENS

In exploring differences in the amount of time children spend using screens, research studies focus on the consequences of spending too much time using screens. Time use research can be broadly categorised in to Child Development, Physical Health, Mental Health and Social.



CHILD DEVELOPMENT

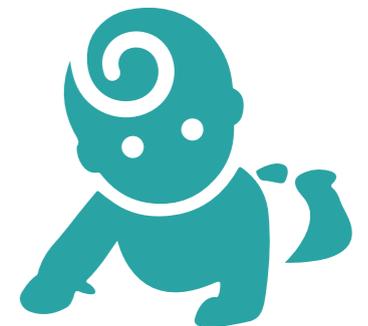
According to a leading child development expert Chris Rowan, early exposure to technology can disrupt the development of a child's brain (Rowan, 2010) also noting that overuse of screens has the effect of families rarely interacting with each other ultimately leading to a requirement of ongoing family support.

The impact of rapidly advancing technology on the developing child has also been studied by Dr Aric Sigman (Sigman, 2007), with doctors at the Royal College of Paediatrics and Child Health (2012) calling for government health officials to set limits on the amount of time children spend

using screens, advocating for under-threes to be kept away from them altogether.

Speech delay in toddlers has also been linked to the amount of screen time. The research conducted by the University of Toronto (2016) found that the more screen time by a child, the more likely the child was to have delays in expressive speech. This research supports the view of paediatric Cris Rowan (2014) who has worked directly with children. Pointing out four factors which are necessary for healthy child development: movement, touch, human connection and exposure to nature. Use of screens including smart

RESEARCH CONDUCTED BY THE UNIVERSITY OF TORONTO (2016) FOUND THAT THE MORE SCREEN TIME BY A CHILD, THE MORE LIKELY THE CHILD WAS TO HAVE DELAYS IN EXPRESSIVE SPEECH



phones, tablets and laptops contributed to under stimulation of these factors, creating neurological development problems while at the same time overloading both the visual and auditory sensory systems creating an imbalance.

Furthermore, a study by the University of Bristol which involved more than 1,000 children aged 10 measured the time children spent in front of a screen. They found that children who spend longer than two hours a day in front of a computer or TV are more likely to suffer psychological difficulties than other youngsters.

As screen use begins to rise, the World Health Organisation (WHO) warns that it is putting children's health at risk (Independent, 2017). The WHO reported a steep increase in children using technology for two hours or more each day.

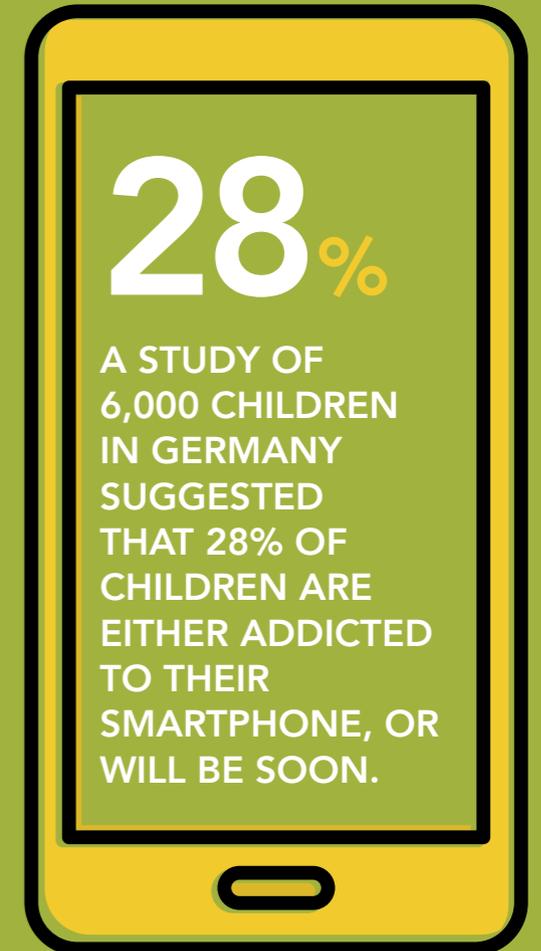
There is a small body of work that suggests technology can have a positive impact upon literacy, particularly in low-income families (Nuemann and Neumann, 2014). Further research by the Massachusetts Institute of Technology (2016) has also seen improvements in literacy for young children in disadvantaged communities. However, very little is known about other positive technology benefits as much research has centred around the negative impacts of technology on children.

SOCIAL

A study of 6,000 children in Germany found a link between phone dependency and health and behavioural problems, suggesting that 28% of children within Germany are either addicted to their smartphone, or will be soon (2017). The researchers reported that children who are introduced to smartphones can develop health problems including hyperactivity or aggression which can also lead to internet dependency.

Children refusing to put down their smartphones has also led some parents to send their children to what is known as 'smartphone rehab'. (Independent, 2017) These 'rehab' centres have been established in Seattle, offering 'intensive recovery programmes' for teenagers who have developed an addiction to their smartphone and other devices.

Moreover, Heather Kirkorian, a professor at the University of Wisconsin-Madison proffers that a further danger is the extent to which parents are no longer interacting with their children, instead using screens, is a far bigger danger.



CONCLUSION

It is difficult to draw concise conclusions from the research outlined above on the positives of screen use without the need for further research. It may be necessary to study the difference between passive media such as watching programmes on devices versus time spent using screens in a more active way such as homework purposes or communicating with family and friends.

There is sufficient research to show that screen time has increased dramatically over the years. What is also clear is that many parents are struggling to manage the time their children spend using screens. A survey by Action for Children found that almost one in four parents (23.1%) struggle to control their child's screen use (Action for Children, 2016).

This study will serve to take a closer look at the time children are spending using screens, and whether there is a need to assist parents, teachers and health professionals with specific guidance on screen time and to help create effective strategies to reduce screen time.



ALMOST ONE IN FOUR PARENTS STRUGGLE TO CONTROL THEIR CHILD'S SCREEN USE (ACTION FOR CHILDREN, 2016).

CHAPTER

3



METHODOLOGY

INTRODUCTION

The purpose of this study was to investigate the amount of time children in Northern Ireland spend using screens during the week (including weekends), how parents view the time spent using screens as being either positive or negative, establish if they have been given any guidance on the amount of screen time children should have and how they are responding in the management of their children's screen time.

A mixed methods design was used for conducting this research. This type of method is best suited for this study as it allows for the mixing of both the quantitative data and the qualitative data to best inform the questions asked in this study.

QUESTIONNAIRE DATA COLLECTION

PARTICIPANT SELECTION

The researcher approached 216 participants via email to complete an online survey. The participants were from a list of people who had undertaken cyber safety training workshops delivered by Children in Northern Ireland. These workshops were developed in collaboration with the researcher in recognition of how ever-present screens have become in the lives of children. The rationale for the workshops was to develop and deliver a course for parents and carers on how to ensure quality screen time, setting screen time limits and teaching appropriate behaviour techniques in setting boundaries to limiting online screen time and keeping children safe online.



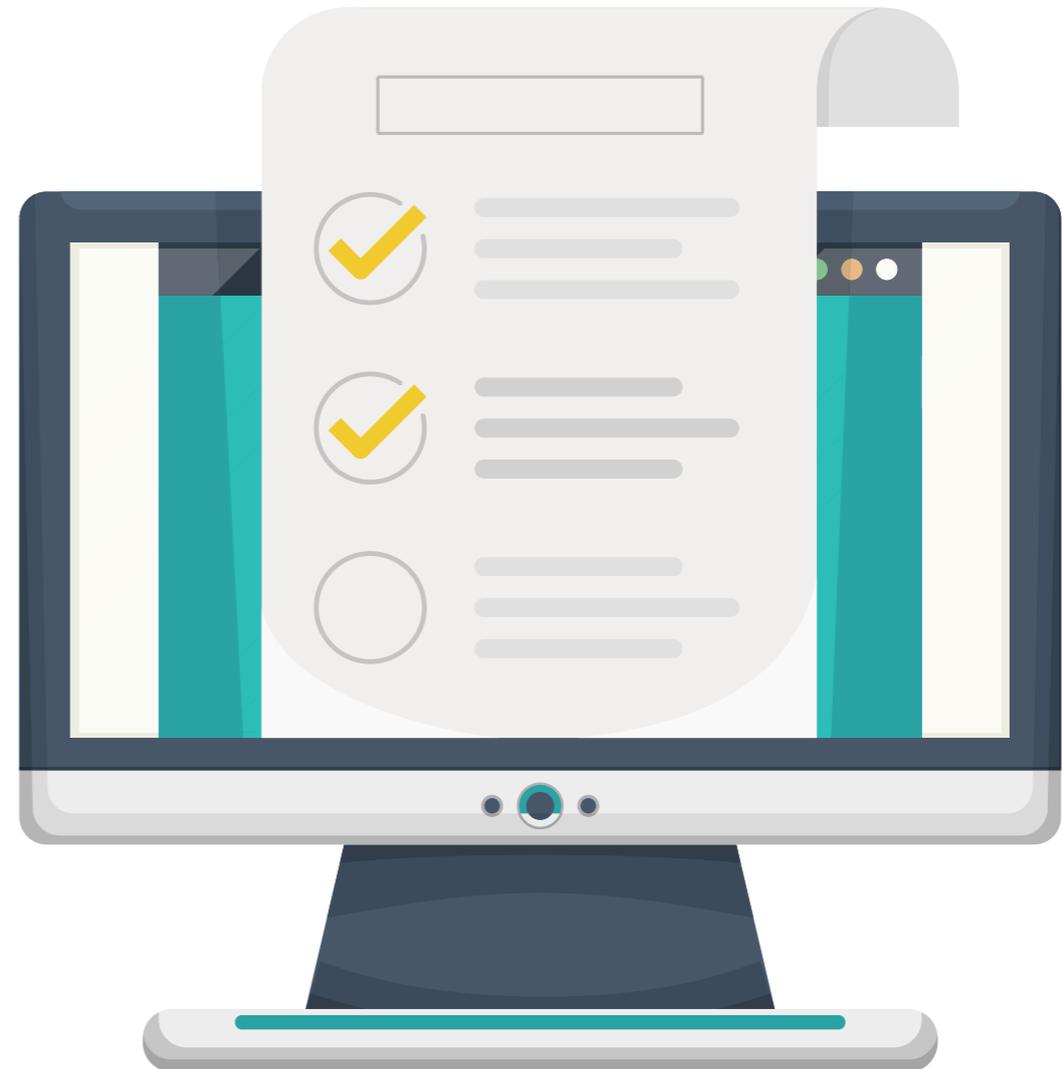
THE RESEARCHER APPROACHED 216 PARTICIPANTS VIA EMAIL TO COMPLETE AN ONLINE SURVEY.

These cyber safety workshops provided an opportunity for the researcher to engage further with parents who had expressed concern at these events regarding the amount of time their children spend using screens including the adverse effects of excess exposure to digital media, including television and mobile/interactive technologies, along with relevant health concerns.

QUESTIONNAIRE DEVELOPMENT

The questionnaire was developed to gather information on school-aged children only and for parents to be able to answer in one sitting. It was broken down into multiple stages:

1. to gather demographic data on those participating including location and nationality
2. number of children in the family including ages
3. children's screen use broken down by age, time spent using screens during a school day and at weekends
4. time spent using screens broken down by type of device
5. parents' knowledge, understanding and concerns regarding their child's screen use and
6. mediation of screen use between parent and child.



QUALITATIVE INTERVIEWS

Semi-structured follow up interviews were held with a sample of parents to establish more detail about their children's screen time practices and any issues they had.

Questions were developed to expand on the quantitative survey:

- ❓ How do you feel about the amount of time your child spends using screens?
- ❓ How would you describe the impact screen time has on your child, including their behaviour and how they interact with the rest of the family?
- ❓ What negative impact do you see with the amount of screen time?
- ❓ What positive impact do you see with the amount of screen time?
- ❓ How do you manage your child's screen time? What techniques do you use, if any? Would you like guidance on screen time? Would you like help managing your child's use of screens? Who should provide that advice / guidance?
- ❓ Can you tell me how you view the future in terms of children using screens – positives/negatives?

The researcher also wanted to establish the amount of screen time undertaken by children in the classroom. Invitations were sent out to Head Teachers of six schools – 3 primary and 3 post-primary. Four schools responded – 2 primary and 2 post-primary. Interviews were undertaken with the four schools.

Questions were developed to garner views on the use of screens in the classroom:

- ❓ Do you use / does the school use technology/screens in lessons?
- ❓ How do you / does the school use technology/screens in lessons?
- ❓ How much time are children using technology/screens in lessons?
- ❓ What technology/screens do they use?
- ❓ What are the benefits of using technology in lessons? What are the disadvantages?
- ❓ Do you / does the school know how much time students use technology/screens outside of lessons?
- ❓ How do you feel about the amount of time children spend using screens?
- ❓ How would you describe the impact screen time has on students?
- ❓ Do you know of any guidance regarding the use of screen time?
- ❓ Have you received any guidance?
- ❓ Would you like guidance?

CHAPTER

4



RESULTS

In exploring the amount of time children spend using screens, the researcher found age-related and gender differences. This time-use research also shows that parents find it increasingly difficult to manage screen time and they use a variety of mediation tools to try and influence the amount of time their children spend using screens. There is an amount of diversity across families in the degree to which they use these mediation tools to regulate screen use.

This section presents the results from the analysis of the surveys and interviews.



WHAT IS SCREEN-TIME

For the purposes of this research screen time is the term used for activities done in front of a screen incorporating television viewing, computer, tablet, smart phone use and electronic gaming. Screen time is sedentary which means being physically inactive while sitting down in front of a screen for a variety of activities.



PARENTS FEEL
THEIR CHILDREN
ARE SPENDING
TOO MUCH TIME
USING SCREENS
AND IT IS
IMPACTING
UPON THEIR
HEALTH AND
SOCIAL
INTERACTION

KEY FINDING 1



THE AMOUNT OF TIME CHILDREN SPEND USING SCREENS RANGES FROM 11 HOURS TO 34 HOURS PER WEEK.

Children aged 4-15 spend on average 20 hours per week using screens. Four-year olds are spending on average 15 hours per week using screens. With children aged 13 spending the highest amount of time using screens at 34 hours, and children aged 5 spending the least amount of time on screens at 11 hours per week.



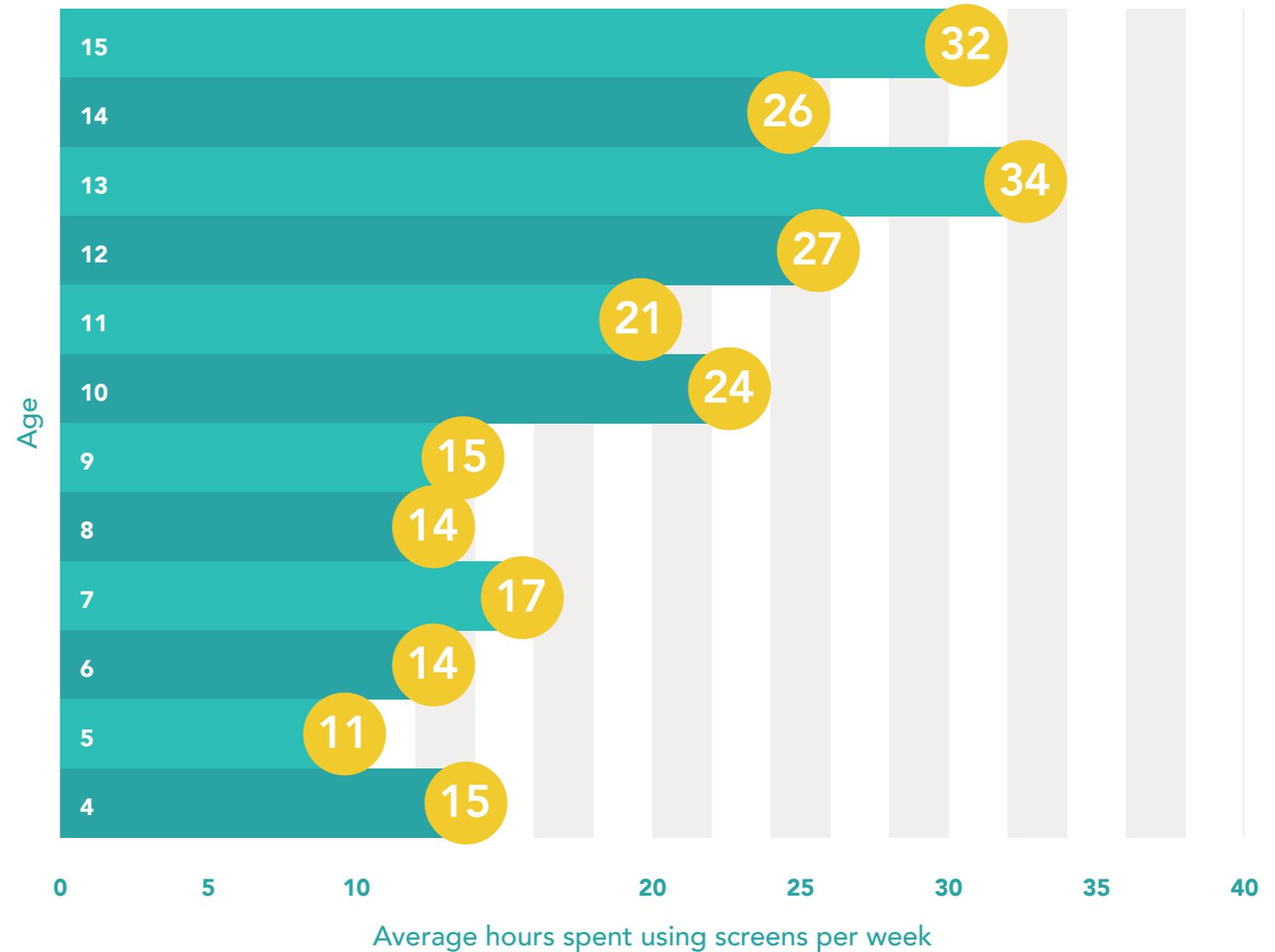
11-34
HOURS PER WEEK
USING SCREENS

In Table 1, we can see the average amount of time children are using screens per week according to their age. In terms of the amount of time, children spend on average 20 hours per week using screens.

TABLE 1:
ESTIMATED AVERAGE
AMOUNT OF TIME CHILDREN
SPEND USING SCREENS PER
WEEK (MONDAY-SUNDAY)
ACCORDING TO AGE

Age	Hrs
4	15
5	11
6	14
7	17
8	14
9	15
10	24
11	21
12	27
13	34
14	26
15	32

GRAPH 1: THE AMOUNT OF TIME CHILDREN AGED 4 -15 YEARS OLD SPEND USING SCREENS ON AN AVERAGE WEEK



This data starts to corroborate the views held by parents that their children are spending too much time using screens. While the initial data clearly illustrates the amount of time, during the more in-depth interviews parents were asked to elaborate on the amount of time their children spend using screens.

This provided a very detailed picture:

**"BAD
TEMPER IN
BOY ONCE
SCREEN TIME
IS UP"**

- ☞ We no longer read together as a family as he's always using screens;
- ☞ He has to be bribed in to doing other things with us as a family which has damaged his relationship with his grandparents;
- ☞ There is less interest in other things, on a sunny day he would prefer to be upstairs gaming;
- ☞ I am worried about how engrossed my son gets when playing games on tablet or console and how other activities never are as attractive to him as tablet or games console;
- ☞ Bad temper in boy once screen time is up;
- ☞ I get concerned about the amount of time she spends on her phone. In fact, there are times when she is using 2 or 3 devices at once.

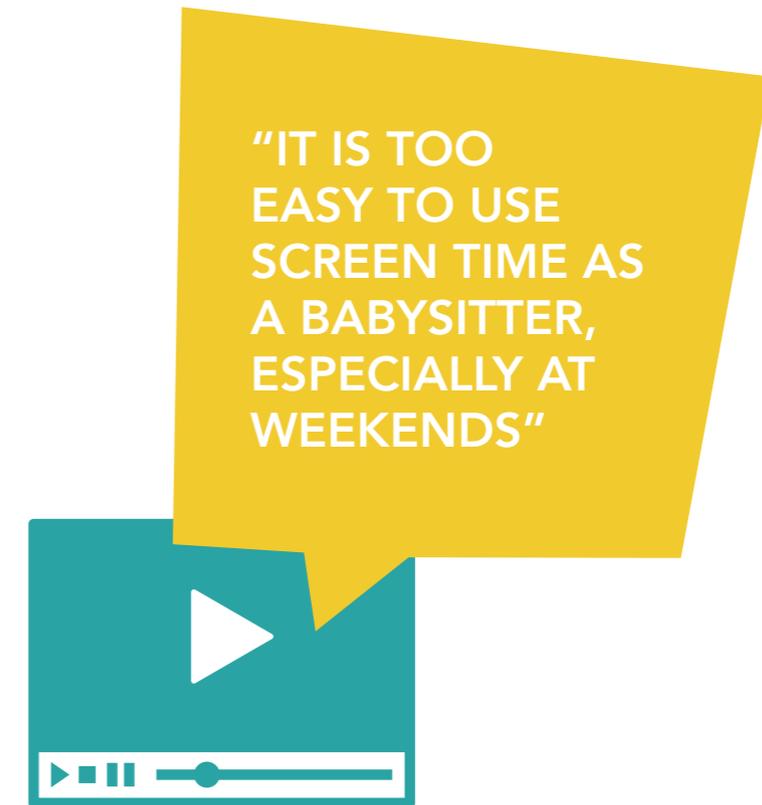
There are differences in use of screens in terms of increased usage by the older aged children. One factor to consider is the amount of alone time children have, away from their parents. As children get older they spend less time in the company of their parents. This means that older children may actually be spending more time using screens than their parents know. It may also be the case that parents have less influence over an older child's activities than they once had.

Parents elaborated on the use of screens at the weekend.

- It is too easy to use screen time as a babysitter, especially at weekends;
- I often let them use their screens more at the weekend because they have no school work;
- They don't like coming out shopping with me anymore which means they are on their screens a lot more at the weekends;
- She's always on her phone, the weekend is often the worst.

There is an interesting difference to note between weekdays and weekends and could be related as much to the home environment as it is to the school environment. Schools place restrictions on devices allowed on school premises as outlined within their Safeguarding policies.

Another factor could be children do not spend as much time in school and after-school activities at the weekend, this sets a natural limit on how much time children spend using screens during week days. Parents also noted they used screens as a means of 'baby-sitting' allowing them more time to catch up on household chores. This may go some way to explain the differences between time spent using screens during the week and the increase at weekends.

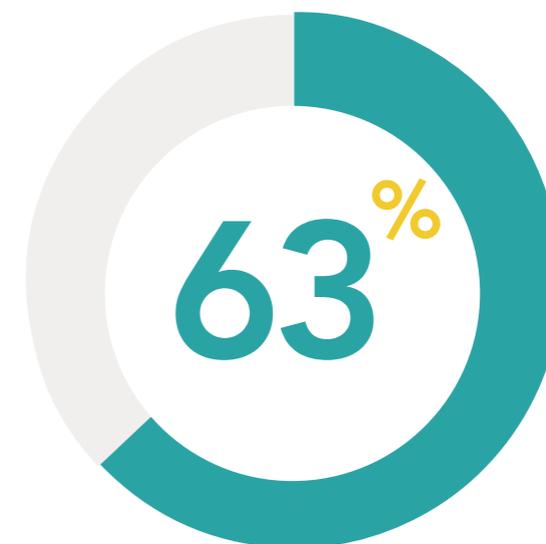




SCREENS ARE HAVING A NEGATIVE IMPACT UPON A CHILD'S SOCIAL AND FAMILY INTERACTION.

Table 2.1 below illustrates that parents are concerned about the amount of time their children spend using screens. Sixty-three percent said they had a concern regarding their child's screen use in comparison to 37% who did not have a concern. It is interesting to note that this time spent using screens has the potential to take away from interaction with family members, outdoor activities, school work and even sleeping:

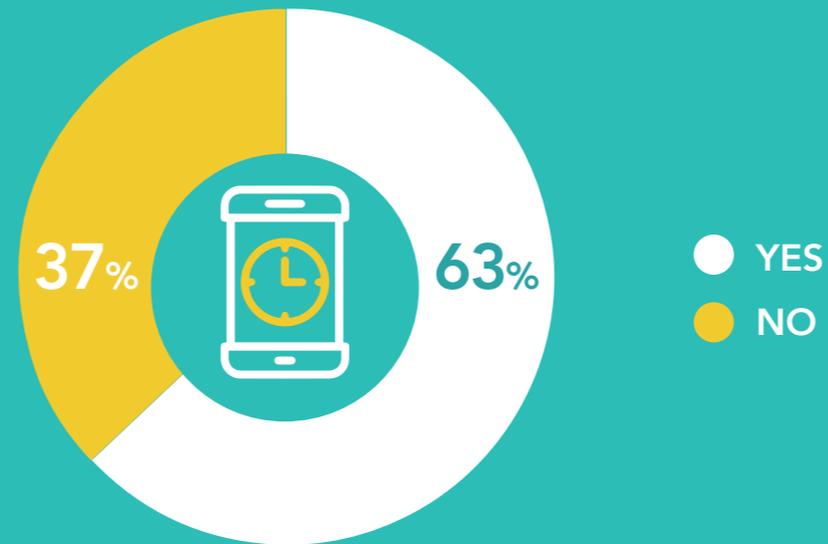
- ✉ I removed the TV from all bedrooms and living areas as I noticed massive tantrums after screen time, and broken sleep. The kids only see TV when they visit their granny, and I try to restrict it- but I'm not always there to enforce it. I get knocked back with "sure - it's educational";
- ✉ I would much prefer them to go outside and play rather than playing games on screens or watching tv. Though when the weather is bad I will let them play for as long as they want really;



OF PARENTS SAID THEY HAD A CONCERN REGARDING THEIR CHILD'S SCREEN USE.

- ☞ Tiredness and concentration can affect school work and lead to bad temper;
- ☞ When younger I knew what games, he was playing (CBeebies stuff and learning games through school). As he's gotten older I don't feel fully informed of what he's playing, what it involves, and who is playing with him (remotely). He is less engaged with the 'real' world and less involved in activities which do not involve screens and keyboards;
- ☞ I do have friends whose kids have had mental health issues because they are using screens right up to 1 and 2 am and then not sleeping, the impact on them not having sleep is huge.

GRAPH 2.1: CONCERNS OF PARENTS REGARDING THEIR CHILD'S SCREEN USE



Conversely, some parents, especially for older children, recognised the benefits of screen time including the social connection with their friends.

- ✓ The phone is always with him but I know that he is communicating with his friends as they don't live nearby;
- ✓ She is able to communicate immediately which is great.
- ✓ They can speak to their grandparents in Canada which is of value.

KEY FINDING 3



SCREENS ARE HAVING A NEGATIVE IMPACT UPON THE HEALTH AND WELL-BEING OF CHILDREN. PARENTS NOTED THEY HAD CONCERNS REGARDING THE IMPACT SCREENS WERE HAVING ON THEIR CHILD'S HEALTH AND WELL-BEING AND PROVIDED INSTANCES OF NEGATIVE MOOD, ATTITUDE AND TIREDNESS FROM TOO MUCH SCREEN TIME.

While parents noted their concerns about the impact on the family, further examples demonstrated that they also had concerns about screen time and health problems including mental and physical health.

In illustrating this, parents noted the following:

- ☞ Mood/attitude can be a bit negative if watches lot or can become very involved & distant on a game or show;
- ☞ Tiredness and concentration can affect school work and lead to bad temper;
- ☞ Anti-social if prolonged use & possibly damaging to long term eyesight when studying a small screen on a smart phone for long periods;
- ☞ We would be concerned about overall correct brain development and physical functionality of the body, as well as practical skills and common sense development;
- ☞ I think there is a link between aggression and too much screen time;
- ☞ Behavioural changes are evident after too long on tablet;
- ☞ I am concerned about the use of screens as one of my daughters is particularly 'addicted' to her iPhone;
- ☞ I believe that the prolonged use of smart phones are causing harm to vision with straining of eyes from small screens/reduced brightness etc.

"I THINK THERE IS A LINK BETWEEN AGGRESSION AND TOO MUCH SCREEN TIME"



When discussing screens in general, parents also raised issues surrounding online safety, inappropriate content and bullying.

In illustrating this, parents noted the following:

- ✎ I always stay with my child when she is using a device to make sure she isn't watching anything inappropriate and I always time how long she has been using it.
- ✎ I am worried about who my child might talk to and cannot get him to understand the dangers involved. I feel he would let all the messaging etc take over his life if I didn't take the devices off him and when I do take them off him he is not happy.
- ✎ I know online bullying can start from an early age. I have spoken to both of my girls about dangers and they both use their tablets with us in the room. We check any games before they are downloaded. I have a concern with YouTube, my youngest loved to watch various innocent clips but a few of the suggestion next clips are worrying!



“I KNOW ONLINE BULLYING CAN START FROM AN EARLY AGE. I HAVE SPOKEN TO BOTH OF MY GIRLS ABOUT DANGERS & THEY BOTH USE THEIR TABLETS WITH US IN THE ROOM.”



KEY FINDING 4

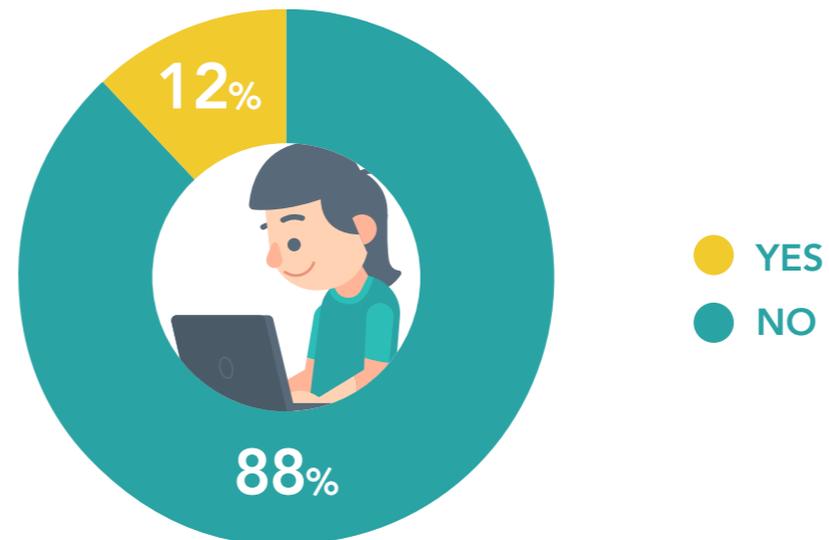


SCREEN TIME IS GREATER THAN PARENTS KNOW. PARENTS WERE ASKED IF THEY KNEW HOW MUCH TIME THEIR CHILDREN SPEND USING SCREENS IN SCHOOLS.

A total of 88% said they did not know, 12% said they did with responses ranging from children spending 30 minutes using screens to 1 hour.

GRAPH 4.1: PARENTS RESPONSE TO THE QUESTION REGARDING WHETHER THEY KNOW HOW MUCH TIME THEIR CHILD SPENDS USING SCREENS AT SCHOOL.

Do you know how much time your child spends using screens in school?

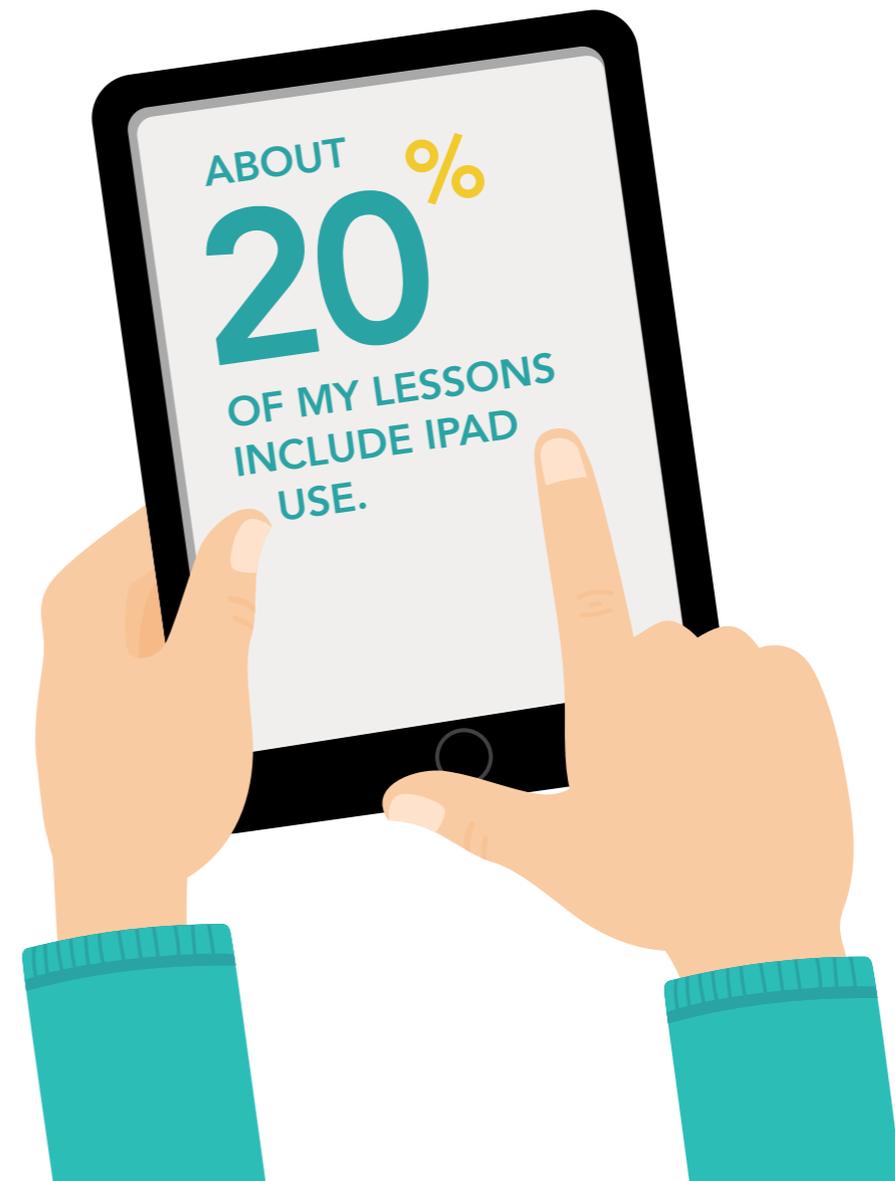


As discussed above, a very large portion of children's screen time happens at weekends, however this figure could be masking the true overall weekly figure unless data is included from schools as to how much time children spend using screens. This means further research is needed to establish where children spend time using screens i.e. home, school, transport to places. This will be extremely important for future research.

The interviews with teachers revealed some data on screen use in the classroom:

- ✉ iPads are used in classes (some classrooms daily others less often);
- ✉ Each class is timetabled to use the computer suite weekly;
- ✉ In P2, children would be using iPads during structured play 3 times a week and would be allowed to use them when their work is completed. But not all children use them each day as only 6 available per year group! Their time on them would be limited to 5/10 mins max.
- ✉ About 20% of my lessons include iPad use.

What is far less clear for teachers is the amount of time their students spend using screens outside the classroom. All of them stated they did not know how much time their students spend using screens with three saying they would assume it was far too much.



In a subsequent question teachers were asked how they would describe the impact screen time has on students. Several teachers noted the benefits and disadvantages:



BENEFITS

- ✓ Children are motivated, focussed, engaged;
- ✓ Allows creativity to be developed e.g. coding, movie making etc to be accessed and taught easily;
- ✓ Information is easily accessed on-line;
- ✓ Paperless, many educational activities can be completed effectively on screen not paper;
- ✓ Monitoring and evaluating easily takes place as scores/results are recorded;
- ✓ The beauty of accessing the world around them from their classroom;
- ✓ Technology brings lessons alive... you can see something happening, a video of a volcano exploding, what India looks like from the air, current affairs as things happen.



DISADVANTAGES

- ✗ As with all technology it costs money, takes time to fix glitches/problems/updates;
- ✗ They get broken;
- ✗ Some don't work so some children cannot complete the activity required;
- ✗ Temptation to be distracted and use other APPS than the one required (though this can be turned off in accessibility options).

ALL TEACHERS INTERVIEWED SAID THEY HAD NOT RECEIVED ADVICE ABOUT THE AMOUNT OF SCREEN TIME CHILDREN SHOULD HAVE YET ALL OF THEM SAID THEY WOULD WELCOME THE INFORMATION AS LONG AS THERE WAS SOUND EVIDENCE TO ACCOMPANY THE ADVICE.



While there are few surprises from the results of the interviews with teachers in terms of advice and guidance, it is interesting to note that teachers have a more positive outlook on screens which are used within the classroom setting to enhance lessons and enjoyment for their students.

A graphic for 'KEY FINDING 5' featuring a yellow banner with the text 'KEY FINDING 5' and a teal icon of a document with a pie chart and lines.

KEY FINDING 5

THERE ARE DIFFERENCES IN THE AMOUNT OF TIME BOYS AND GIRLS SPEND USING SCREENS DEPENDING ON AGE.

At age 4, boys are spending double the amount of time girls are using screens. However, the difference is smaller between the ages of 5 and 11, the gap then increases again between the ages of 12 and 15. Girls spend more time using screens than boys between the ages of 12 and 13. Moreover, there is a difference in types of devices used by boys and girls. Girls are more likely to use smart phones and tablets, with boys more likely to use games consoles.

In addition to looking at the estimated average amount of time children spend using screens, the researcher wanted to explore how children's time spent using screens varies by child gender.

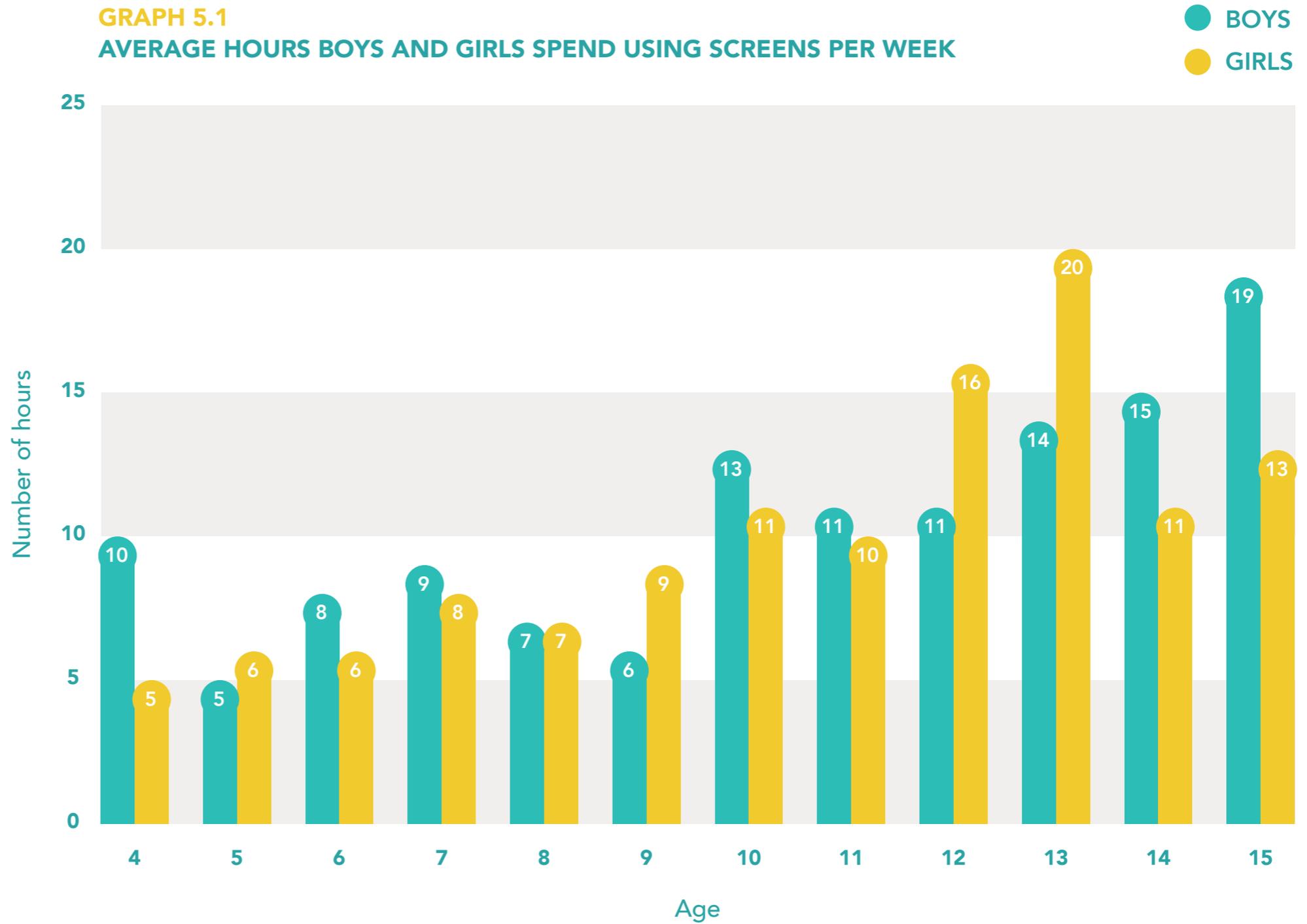


AT AGE 4, BOYS ARE SPENDING DOUBLE THE AMOUNT OF TIME GIRLS ARE USING SCREENS.

TABLE 5.1
COMPARISON OF
THE ESTIMATED
AVERAGE
AMOUNT OF
TIME GIRLS AND
BOYS SPEND
USING SCREENS
IN THE WEEK

Age	Boys	Girls
4	10	5
5	5	6
6	8	6
7	9	8
8	7	7
9	6	9
10	13	11
11	11	10
12	11	16
13	14	20
14	15	11
15	19	13

GRAPH 5.1
AVERAGE HOURS BOYS AND GIRLS SPEND USING SCREENS PER WEEK





Gender differences in time spent using screens varies. Gender differences in time spent using screens is small for some age groups and larger for others. At age 4 boys are spending double the amount of time on screens at 10 hours compared to girls at 5 hours.

Significant differences are not apparent for ages 5 to 11 years. Although, significant gender differences were observed at ages 12, 13, 14 and 15 years.

CHILD GENDER AND USE OF SCREEN TIME DEVICES

In delving in to the differences in the amount of time boys and girls spend using screens, some studies have found boys spend more time using screens while others have found the opposite. These differences might be explained if we look at the differences in the types of devices used.

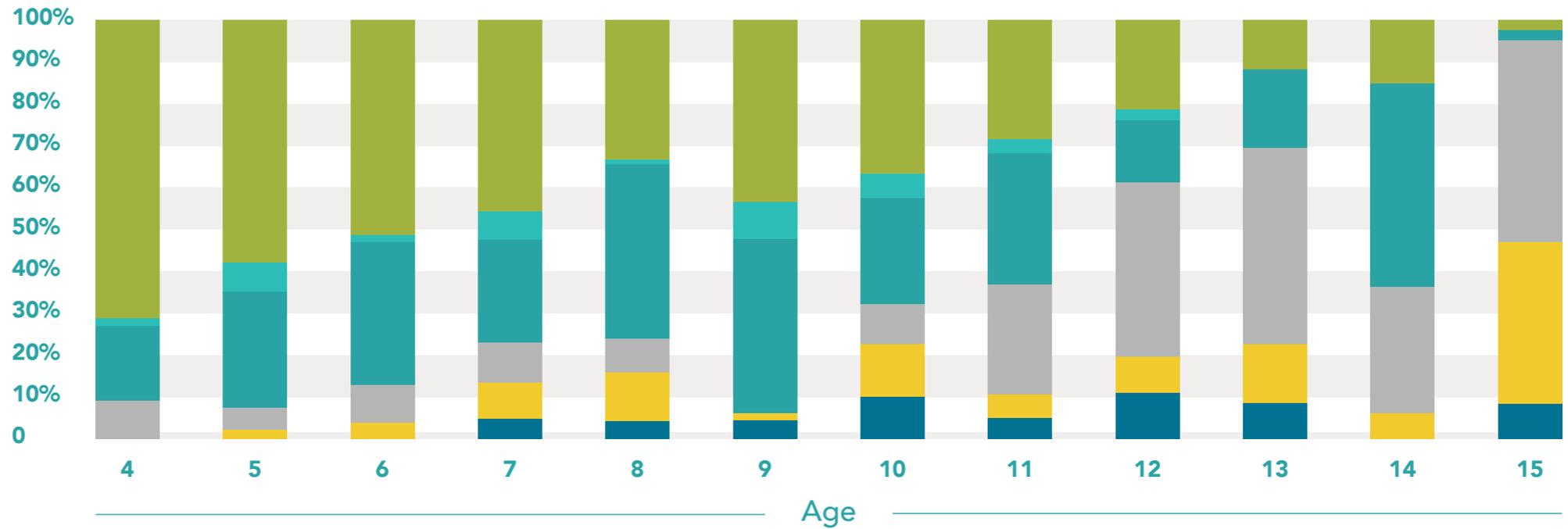




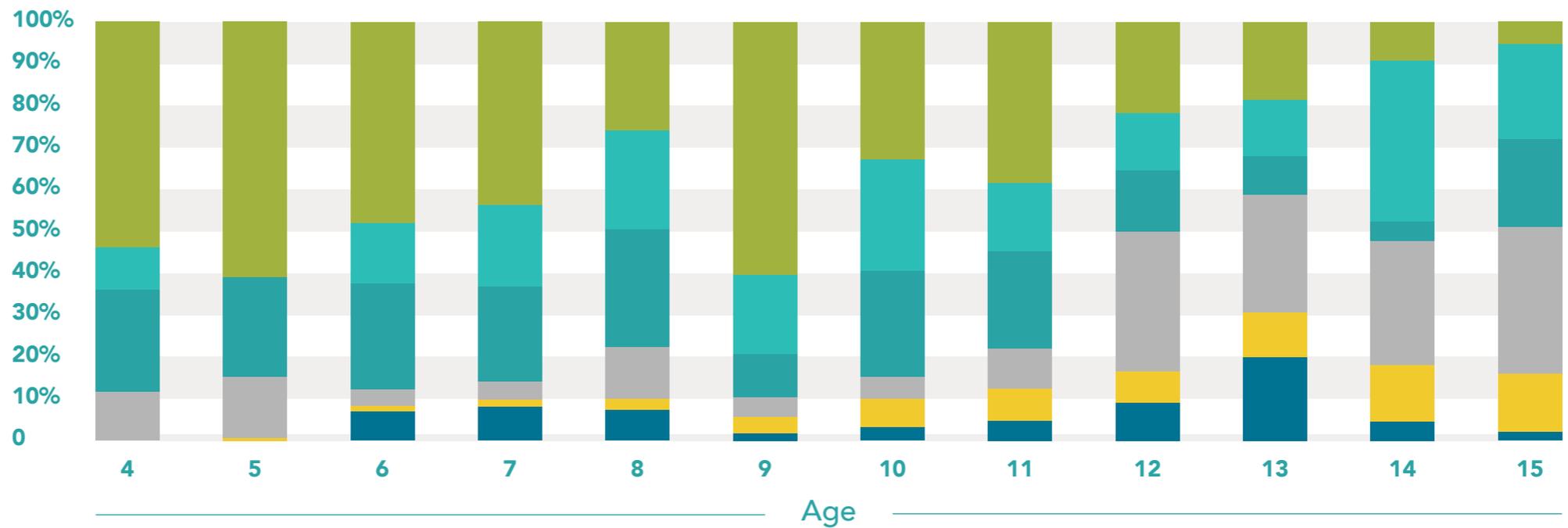
- PC
- LAPTOP
- SMART PHONE
- TABLET
- GAMES CONSOLE
- TV



GRAPH 5.2
PERCENTAGE OF TIME SPENT USING SCREENS BROKEN DOWN BY DEVICE FOR GIRLS



GRAPH 5.3
PERCENTAGE OF TIME SPENT USING SCREENS BROKEN DOWN BY DEVICE FOR BOYS



The first obvious aspect of this data with girls and boys is that the time spent on television reduces the older the age group. For girls at age 4 it is 70% reducing to less than 10% at age 15. At age 4 for boys, television takes up 50% of their screen time reducing to just over 10% at age 15.

Gender differences are also apparent in playing games consoles. The peak age for boys playing consoles is age 14, although gaming does feature in all ages for boys apart from age 5.

Overall, the data shows girls spend less time using a games console than boys, with games consoles not featuring at all in girls aged 13, 14 and 15.

Two further contributors to both girls and boys screen time is the amount of time they spend using tablets and smart phones, for both genders the time using these particular devices is similar with girls slightly higher than boys in terms of smart phone use.

For other devices, the patterns are less apparent by device and gender. The prevalence of use of different devices found in the present study while notable, could go some way to explaining the gender differences in the amount of time spent using screens. However, the overall trend is not conclusive.

THE PEAK AGE
FOR BOYS PLAYING
CONSOLES IS AGE

14



TIME SPENT
ON TELEVISION
REDUCES THE
OLDER THE AGE
GROUP.



PARENTS
FEEL SCREEN
TIME IS
DIFFICULT
TO CONTROL



KEY FINDING 6



FOR MOST PARENTS, SCREEN TIME IS DIFFICULT TO CONTROL. THEY ARE UTILISING A VARIETY OF MEDIATION APPROACHES TO REDUCE SCREEN TIME AND WOULD LIKE MORE CLEAR AND CONCISE GUIDELINES ON SCREEN TIME USE FOR THEIR CHILDREN.

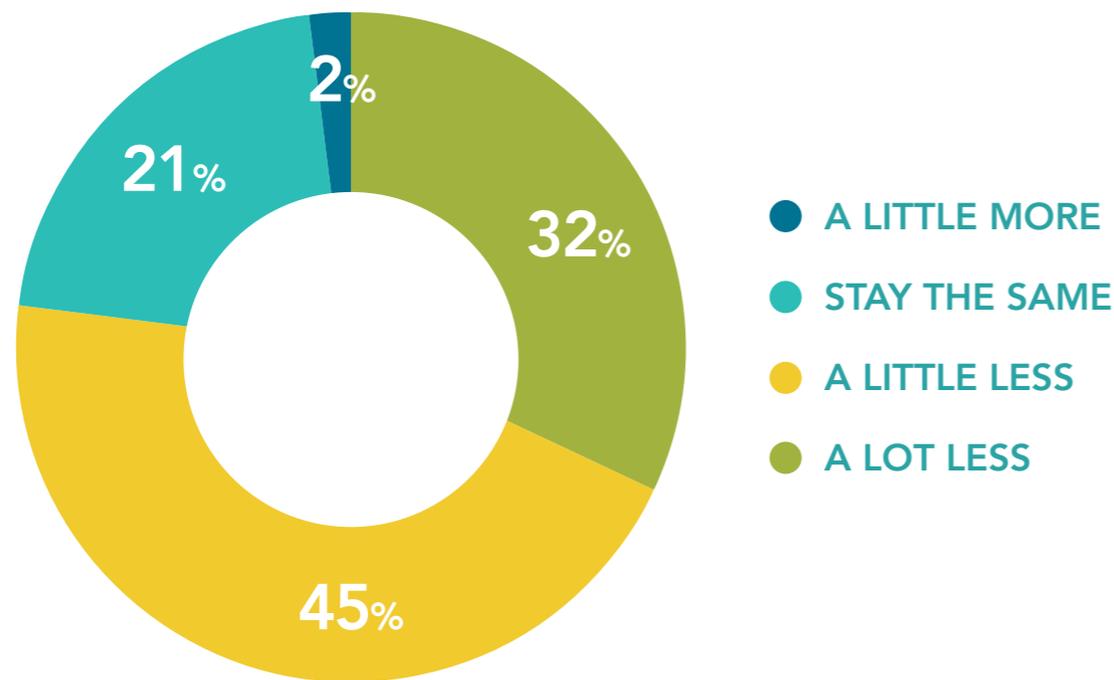
Parents can often influence their child's screen time by utilising practices such as setting time limits on how long they spend using screens as well as controlling the home environment by removing screens from their bedrooms. However, parents expressed frustration and a lack of knowledge as reasons for being unable to keep their child's use of screens under control.



PARENTS WOULD LIKE MORE CLEAR AND CONCISE GUIDELINES ON SCREEN TIME USE FOR THEIR CHILDREN.

Graph 6.1 shows 77% of parents want their children to reduce screen time, i.e. 45% wanted their children to spend a little less using screens and 32% wanted their children to spend a lot less using screens. The data shows that parents are struggling to limit their child's use of screens across all devices. With parents stating that managing the use of devices gets more difficult as children get older.

GRAPH 6.1
AMOUNT OF TIME PARENTS WOULD LIKE TO SEE THEIR CHILDREN REDUCE THEIR SCREEN TIME



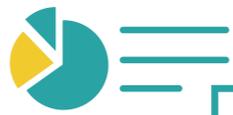
In expanding the opportunity for parents to elaborate on how they controlled screen use, they said the following:

- It's harder to negotiate [with your children] as time goes on;
- The screens are damaging, it's a source of conflict between us;
- If you try and restrict them, they'll do it more on the sly;
- It's how you use it and how you manage it that's the biggest challenge;
- Any and all discussion about the use of screens usually results in arguments. Child knows more about computers than I do and knows how to bypass restrictions and limitations. Very worrying.
- As I know it's the way the future but would always be wary of what she watches or uses. Though not very hi tech myself never sure if i'm doing enough to prevent the wrong apps etc.



PARENTS ARE USING A
VARIETY OF **NEGOTIATION
TOOLS** AS PART OF THEIR
APPROACH TO CONTROL
SCREEN TIME

KEY FINDING 7



PARENTS ARE CONTINUING TO USE A VARIETY OF MEDIATION APPROACHES TO LIMIT THEIR CHILD'S SCREEN TIME INCLUDING THE MOST POPULAR METHODS; MANUALLY LIMITING TIME AND MAKING USE OF PARENTAL CONTROLS WITH FILTERS.

Although the study did not collect information about the precise rules that parents have in place for using screens, the following data provides an overview of how parents are continuing to use a variety of mediation approaches to limit their child's screen time. The question examines their mediation approaches.



GRAPH 6.2
THE TYPE OF MEDIATION APPROACHES PARENTS USE TO LIMIT SCREEN TIME

Limiting the time your child spends online manually

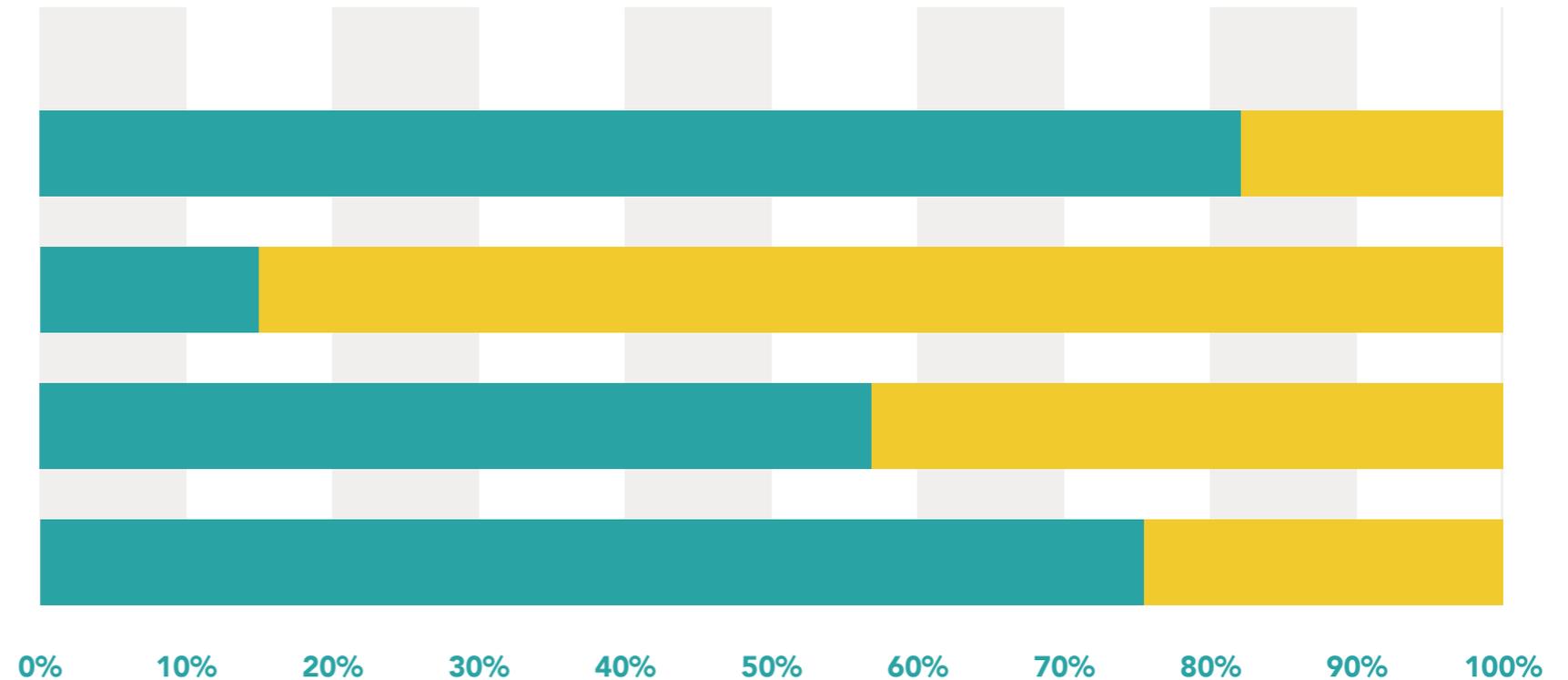
A service that limits the time your child spends online

Parental controls to track and check what websites your child visits?

Parental controls to filter or block some websites?

WHICH TYPE OF MEDIATION APPROACHES DO YOU USE TO LIMIT YOUR CHILD'S SCREEN USE?

● YES
 ● NO



OVER
80%
 OF PARENTS
 LIMIT THE TIME
 THEIR CHILD
 SPENDS ONLINE
 MANUALLY

The figure above indicates that over 80% of parents limit the time their child spends online manually. This was reflected in the qualitative findings.

- ☞ There is that app that you can limit the time, but we often just turn off the Wi-Fi;
- ☞ We've tried a number of things [to limit screen time]. We've tried bargaining, we've

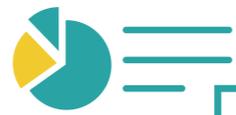
tried pulling the plug, like literally just say right, this is too much of a distraction, you've not done the stuff you said you would and this is important.

Parents also use other mediation methods including parental controls to limit the websites their child visits, using filters to block websites and less than 20% using a service that limits their child's screen use.

PARENTS ARE
REQUESTING
MORE
GUIDANCE
AND **ADVICE**
ON SCREEN
USE

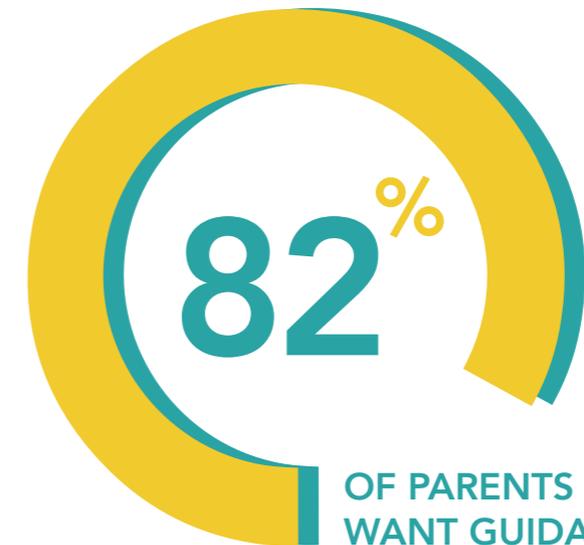


KEY FINDING 8



A TOTAL OF 82% OF PARENTS WANT GUIDANCE ON HOW MUCH SCREEN TIME IS ACCEPTABLE FOR THEIR CHILD. MOREOVER, THEY STATED THEIR DESIRE FOR ADVICE ON HOW TO LIMIT SCREEN TIME TO INCLUDE NEGOTIATION TECHNIQUES AND INFORMATION ON WHAT RESOURCES ARE AVAILABLE AND WHERE.

Broadly speaking, parents often felt they needed more help with both of these aspects. This was reflected in the quantitative and qualitative data with the majority of parents (82%) stating that they had not been given any advice about screen time use for their child, with parents (84%) wanting more information on screen time use for their child.



OF PARENTS WANT GUIDANCE ON HOW MUCH SCREEN TIME IS ACCEPTABLE FOR THEIR CHILD

"I THINK PARENTS WILL NEED GUIDANCE ON HOW TO PROTECT CHILDREN A WHOLE LOT MORE FROM THAT TYPE OF THING AND THEN HOW TO HAVE THAT CONVERSATION"

"IN TERMS OF TACTICS THAT WORK THAT ARE NOT CONFRONTATIONAL, THAT ARE NOT GOING TO CAUSE DOOR-SLAMMING AND SHOUTING FROM EITHER OF US, I DON'T FEEL EQUIPPED FOR THAT."

In addition to asking about awareness of screen time guidance, parents were asked who should provide them with guidance. Thirty six per cent of parents stated schools should provide information on screen time use for their child, followed by 29% stating Government/Department of Health and 18% stating Public Health Agency and GPs/Health Visitors respectively.



OF PARENTS STATED SCHOOLS SHOULD PROVIDE INFORMATION ON SCREEN TIME USE FOR THEIR CHILD.

CONCLUSION

This chapter has outlined screen time usage for 186 children from ages 4 to 15. The children across all the age ranges spend time on screen-based activities. The information captured shows that screens have become a major part of children's lives.

Throughout the chapter the researcher has noted that these figures may not have captured the full extent of the time children spend using screens, especially as the figures are estimates from parents and do not include time spent using screens at school. Overall, the trends and patterns that have emerged from the findings are consistent with anecdotal evidence and specific research on the amount of time children spend using screens.



CHILDREN LIVING IN NORTHERN IRELAND ARE SPENDING ON AVERAGE 20 HOURS PER WEEK USING SCREENS.



OF 8-15 YEARS OLDS IN THE UNITED KINGDOM PLAY COMPUTER GAMES

Children living in Northern Ireland are spending on average 20 hours per week using screens. On age range, four-year olds are spending on average 15 hours per week using screens. With children aged 13 spending the highest amount of time using screens at 34 hours. As children grow so does the amount of time they spend using screens, there could be several factors as to why this is, one being the amount of alone time older children have and the difficulty associated with parents controlling what they do. It could also be partly due to the growing availability of screens within the home and how acceptable it is for four and five-year olds to be given tablets and smart phones as presents. It could also be influenced by children's likes and desires to be seen with the latest technology or to learn about the latest advances in gadgets.

Viewing television was the most common screen-based activity for younger children. Spending time on

smartphones, laptops, tablets and games consoles was more popular with older children.

Children's screen time also differed according to a child's gender. We found that boys spent more time playing games consoles than girls. In the case of boys playing games consoles more than girls, culture could play a vital role.

According to figures from UKIE (2016), 50% of the United Kingdom population plays games, a figure rising to 99% among 8 -15-year olds yet only 14% of women work within the games industry. Moreover, the provision of computing courses at school also varies with a clear gender divide with boys' schools and mixed schools more likely to offer computer classes than girls' only schools. This is also borne out in the statistics for girls studying science, technology, engineering and maths (STEM) subjects. At both GCSE and A-levels, boys are more likely to study STEM subjects than girls.



MOST PARENTS AND TEACHERS SAID THEY WOULD WELCOME ADVICE AND HELP IN TERMS OF THE IMPLICATIONS OF TOO MUCH SCREEN TIME AND WHAT THE RIGHT ABOUT OF SCREEN TIME IS FOR CHILDREN AND YOUNG PEOPLE.

Some differences in attitudes towards screen time were noted. For teachers, they highlighted the educational associations while parents were concerned about the health and well-being aspects associated with too much screen time.

An important focus for both parents and teachers was the lack of suitable guidelines about children's screen time. Most parents and teachers said they would welcome advice and help in terms of the implications of too much screen time and what is the right amount of screen time. This is reflected by the call in December 2016 from educationalists in the UK for Government to issue national guidelines on the use of screens for children (Guardian, 2016).

Regarding screen time, most parents had rules or tried to implement rules regarding screen time. Clearly it is important to understand to

what extent parents felt able to implement these rules. The researcher generally found that parents wanted additional strategies to help them manage screen time. However, as the research has shown, rules and strategies may have a limiting effect on older children as they become more independent and autonomous. This highlights the importance of providing parents with a range of effective and age-appropriate help with managing screen time.

The analysis presented here illustrates that time spent by children using screens is significant. Therefore, guidelines concerning limits on the amount of time children spend using screens and advice to help parents are important. It is unrealistic to expect parents and teachers to manage without screen time guidelines as screens continue to become more a part of everyday life at home and at school.

TEACHERS NOTED THE ESSENTIAL PART OF LESSONS THAT TECHNOLOGY PLAYS BY UNLOCKING A WORLD OF POSSIBILITIES THROUGH SCREEN BASED COMPUTERS.



Of course, as children continue to be exposed to screens at home and increasing through school based activities, consideration of how it limits physical activity, health and mental well-being need to be taken in to account.

While this research has noted the concerns about screen time from the point of view of parents, it is also important to acknowledge the positive aspects of screen time. Teachers noted the essential part of lessons that technology play by unlocking a world of possibilities through screen based computers. As has been noted here, children are using screens to gather information, to learn about new

cultures and to socialise with family and friends. Moreover, the use of screens may have value in terms of progressing the digital skills of girls towards entering the male-dominated technology sector.

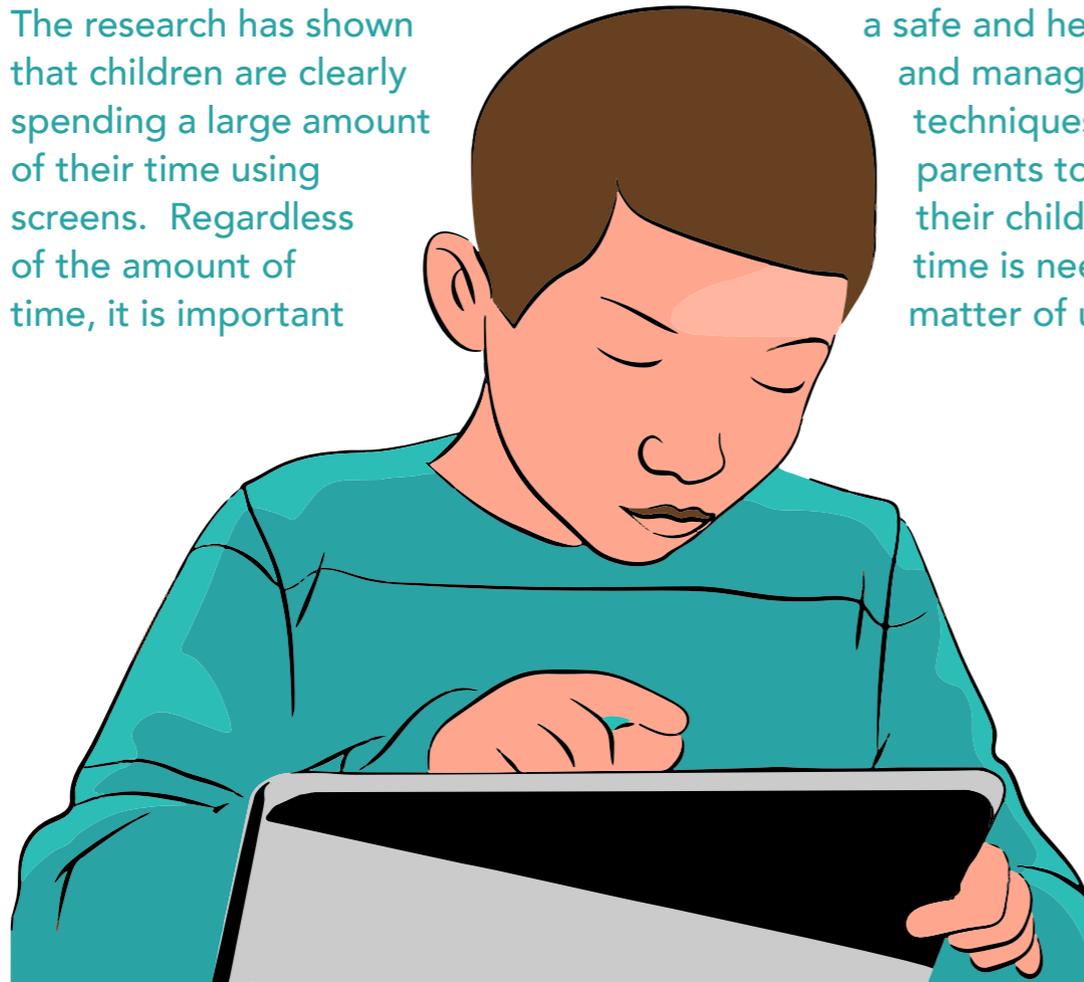
As has already been outlined in relation to screen time, understanding the implications it has on children's health and well-being needs to be fully understood. Here the researcher has noted some of the concerns of parents. Aspects such as health issues including eye-sight, headaches, brain development, lack of sleep and mental health issues of social isolation, moods, and self-image.

Additional recurring research to gain greater insights on the impact of screens will be important as screens become more prevalent in the lives of children as they continue to be used as a means of entertainment, a method for teaching and a way of communicating and connecting.

The research has shown that children are clearly spending a large amount of their time using screens. Regardless of the amount of time, it is important

that guidance is issued and that children's screen time is managed. Not just to ensure it limits the negative impact upon their health and mental well-being but to ensure that children are safe and do not interact with activities that could have a negative impact upon them as growing children. Finding the right balance between a safe and healthy time and management techniques to assist parents to manage their child's screen time is needed as a matter of urgency.

FINDING THE RIGHT BALANCE BETWEEN A SAFE AND HEALTHY TIME AND MANAGEMENT TECHNIQUES TO ASSIST PARENTS TO MANAGE THEIR CHILD'S SCREEN TIME IS NEEDED AS A MATTER OF URGENCY



RECOMMENDATIONS

DRAWING FROM THE FINDINGS OF THIS RESEARCH,
A NUMBER OF KEY POLICY RECOMMENDATIONS HAVE BEEN IDENTIFIED:

1

The Department of Health and the Public Health Agency should issue guidance on the appropriate amount of screen time for all children and young people. This should be given to all parents and carers.

2

The Department of Education should introduce guidance based on best practice for Sure Starts, pre-school settings, and all schools on the appropriate amount of screen time for children and young people taking in to consideration how much time children and young people already spend using screens at home.

3

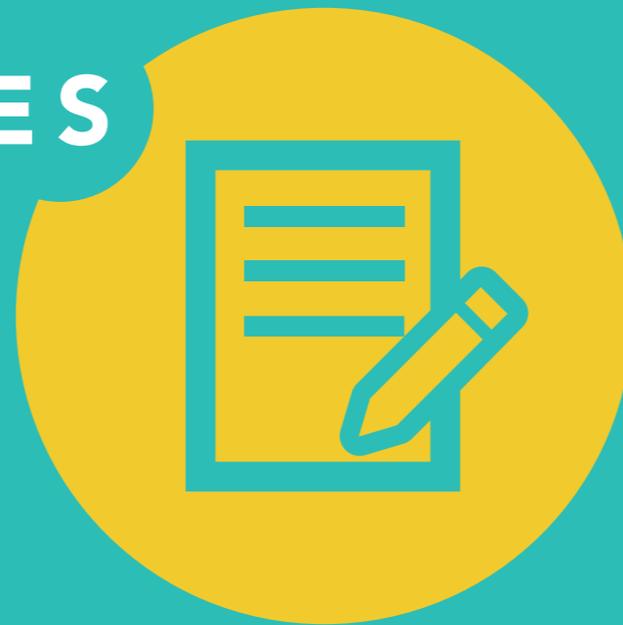
Training for teachers, health care professionals and across all other disciplines including the community and voluntary sector to raise awareness of the risks associated with too much screen time. This training should also be reviewed on a regular basis as new research emerges.

4

An appropriate cross departmental strategy should be developed to assist parents and carers to:

- » Understand the health and well-being risks associated with screen time.
- » Raise awareness of the techniques and software most effective to limit screen time use.

REFERENCES



Action for Children (January, 2016) Unplugging from Technology Retrieved from <https://www.actionforchildren.org.uk/news-and-blogs/whats-new/2016/january/unplugging-from-technology/>

American Academy of Paediatrics. (2016). Retrieved from <https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/american-academy-of-pediatrics-announces-new-recommendations-for-childrens-media-use.aspx>

American Academy of Pediatrics. (2017). Handheld screen time linked with speech delays in young children. Retrieved from https://www.eurekalert.org/pub_releases/2017-05/aaop-hst042617.php

Association for UK Interactive Entertainment. <http://ukie.org.uk/research#Market> accessed 11th September 2017

Bryman, A. (2012), *Social Research Methods*. Oxford.

Carter, Ben, PhD, MSc; Philippa Rees, MPhil, MBBCh; Lauren Hale, PhD, MPH; et al.

December 2016. Association Between Portable Screen-Based Media Device Access or Use and Sleep Outcomes: A Systematic Review and Meta-analysis. Retrieved from <http://jamanetwork.com/journals/jamapediatrics/article-abstract/2571467>

Department of Education Northern Ireland. (2015). Acceptable Use of the Internet and Digital Technologies in Schools. Retrieved from <https://www.education-ni.gov.uk/sites/default/files/publications/de/acceptable-use-of-the-internet-circular.pdf>

de Moraes ACF, Carvalho HB, Siani A, et al. Incidence of high blood pressure in children — Effects of physical activity and sedentary behaviors: The IDEFICS study: High blood pressure, lifestyle and children. *International Journal of Cardiology*. Published online November 26 2014.

Guardian. December 2016. Experts call for official guidelines on child screen use. Retrieved from <https://www.theguardian.com/society/2016/dec/25/experts-call-for-official-guidelines-on-child-screen-use>

Huffington Post. Ten reasons why handheld devices should be banned in children under 12 years of age. March 6, 2014 by Cris Rowan. Retrieved from http://www.huffingtonpost.com/cris-rowan/10-reasons-why-handheld-devices-should-be-banned_b_4899218.html

Independent. May 2016. The internet is costing young people their jobs and social lives. Retrieved from <http://www.independent.co.uk/life-style/gadgets-and-tech/this-dark-side-of-the-internet-is-costing-young-people-their-jobs-and-social-lives-a7041451.html>

Independent. May 2017. Dramatic Rise in Screen Time. Retrieved from <http://www.independent.co.uk/news/uk/home-news/dramatic-rise-screen-time-phones-tablets-childrens-health-at-risk-who-report-a7739621.html>

Irish Times. May 2017. Smartphone addiction growing. Retrieved from <https://www.irishtimes.com/news/world/europe/child-smartphone-addiction-growing-says-german-drug-agency-1.3101529>

Massachusetts Institute of Technology (2016). "Providing children with tablets loaded with literacy apps yields positive results: Project to provide children with tablets loaded with literacy apps reports positive results in Africa, US." Accessed via: ScienceDaily, 26 April 2016.

Millineum Cohort Study. Retrieved from <http://www.cls.ioe.ac.uk/page.aspx?sitesectionid=851>

Morgan, N. (2016). BETT Show. Retrieved from <https://www.gov.uk/government/speeches/nicky-morgan-bett-show-2016>

Nikklen, S. W., Valkenburg, P.M., & Huizinga, M. (2014). Media use and ADHD-related behaviours in children and adolescents: A meta-analysis. *Developmental Psychology*, 50, 2228-2241.

Nuemann, M.M & Nuemann, D.L (2014) Touch screen tablets and emergent literacy. *Early Childhood Education Journal* 42:4 231-39

OFCOM. (2015) Children and Parents: Media Use and Attitudes Report. Retrieved from

https://www.ofcom.org.uk/__data/assets/pdf_file/0024/78513/childrens_parents_nov2015.pdf

Office for National Statistics. (2016) Internet users in the UK. Retrieved from <https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2016>

Page AS, Cooper AR, Griew P, Jago RP. (2010). Children's screen viewing is related to physiological difficulties irrespective of physical activity. *Pediatrics*;126(5):e1011-7.

Public Health Agency Birth to five Report. April 2016. Health and Social Wellbeing Improvement. Retrieved from <http://www.publichealth.hscni.net/sites/default/files/Chapter%205%20Learning%20and%20playing.pdf>

Rowan, C. (2010) Virtual Child: The terrifying truth about what technology is doing to children

Royal College of Paediatrics and Child Health (2012). Retrieved from <http://www.rcpch>.

[ac.uk/news/rcpch-responds-screen-time-study-published-adc](http://www.rcpch.ac.uk/news/rcpch-responds-screen-time-study-published-adc)

Safeguarding Board for Northern Ireland. (2014) /ab exploration of e-safety messages to young people, parents and practitioners in Northern Ireland.

Sampasa-Kanyinga, H. and Lewis, R.F. (2015) Frequent use of Social Networking Sites is Associated with poor psychological functioning among children and adolescents. *Cyberpsychology, Behavior and Social Networking*. 18(7), pp380-385.

Webb, E.J., Campbell, D.T., Schwartz, R.D., and Sechrest, L., (1966). *Unobtrusive Measures: Nonreactive Measures in the Social Sciences*. Chicago: Rand McNally.

Ybarra. M.L., Alexander, C., & Mitchell, K. J. (2005). Depressive symptomatology, youth Internet use, and online interaction: A national survey. *Journal of Adolescent Health*, 26 9-18.

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