

Evaluate and Analyse the use of ICT as a means of prompting and supporting young children's holistic development.

Student number 1705335

EAEE6006

Word count 4543

Section 1- Evaluation of the Use of iPads and Tablets

Digital devices available to children within the school setting, at home or socially, are ever evolving in their young lives. This has been a source of debate in the media and in academic fields for more than a decade but with the introduction of the first iPad in 2010, the interactivity of digital devices became normal and an expected part of young lives, according to the British Journal of Educational Technology (2018).

Consequently, according to Dunn (2018) tablet computers have the potential to transform education, giving children learning opportunities that have never been more rich, collaborative or independent, depending on the child's needs.

Using the iPad within a school setting can be both, as Dunn (2018) describes, collaborative or independent. A child can work as part of a group, using the iPad, understanding it's a tool to be shared, thus allowing for collaboration and sharing of knowledge and knowhow. Also allowing the more able child to scaffold learning, as Bruner suggests, as he developed the term *scaffolding*, as a metaphor to describe the role played by the interactional talk between learners and skilled others. Burns and de Silva Joyce (2005)

Scaffolding enables children to learn from one another effectively as scaffolding is tuned to the needs of learners and constantly adjusted in response to what they are able to do. Support is gradually reduced as skills and knowledge are acquired and learners are more likely to be successful when tasks are broken down into achievable parts. Burns and de Silva Joyce (2005)

As children in 2015 are found to be interacting with digital media from the age of 4 months according to Chassiakos et al (2016) the use of mobile technology must be taught in school so the child can be taught to use the digital media with respect, understanding its challenges and pitfalls as well as the benefits.

There are considered to be many problems with the introduction of iPads into the lives of our young children, heavy media use during preschool years is associated with a

small but significant increase in body mass index which causes far reaching consequences as the child grows, according to Chassiakos et al (2016), as obesity and depression becomes such a problem in living a healthy life later in the child's journey.

However, iPads are increasingly being used for children who require a genuine and meaningful engagement in the real world and who are required to understand the world as it happens, according to Dunn ((2018). As significantly more children enjoy to write, using iPads and social media, according to Clark and Teravainen (2017) resulting in digital literacy becoming 67% more popular than using books and pens within the classroom. This, according to Clark and Teravainen (2017) especially involves boys, as the technology they are surrounded by engages them and gives them more interaction and purpose in their literacy as becoming literate in a variety of multimodal contexts, oral, aural, linguistic, visual and kinaesthetic, with both printed and digital resources are essential to being able to function effectively in contemporary societies. Yelland (2018). Children need adults within the school setting to improve and encourage literacy and numeracy through the use of both print and digital iPads. This gives the child the opportunity to use their skills in context and not to be isolated in mechanical applications. Yelland (2018).

Livingstone et al (2015) states that their study showed that tablets have quickly become popular and valued within young children's digital lives as the interactive touchscreen is so much easier to use than a mouse or a laptop. The manipulative dexterity of the child using the touchscreen means the child gets easy and immediate results. Livingstone (2015) argues that as the young child uses tablets for playing games and watching streaming or on-demand entertainment, they are not yet using interactive educational games and so few have the skills for creating content or enhancing their education, without adult interaction.

Although, young children can use tablets effectively as they record and video or take photographic evidence of opportunities of peer and personal learning within a structured EYS, often without an adult presence according to Danby et al (2018) It is stated that digital learning with interactive tablets develops children's language development and social learning but cues for empathy and valuing others cannot be learned without personal interaction. A report by Radesky et al. (2015) reviews the

limited research on the impact of interactive media use on children and suggests that interactive media can be useful for teaching concrete knowledge for example, science, addition, subtraction, counting, multiplication, and chemistry, however, skills such as self-regulation and empathy are perhaps best learned through interactions with peers and caregivers in naturalistic environments for young children.

However, adult involvement is vital in children's development and the Earlier American Acadamy of Pediatrics (2016) recommends, though their research, that in person interaction with parents are much more effective than video for learning of new verbal or nonverbal learning skills. Before two years of age, children are still developing cognitive, language, sensorimotor and social-emotional skills, which require hands on exploration and social interaction with trusted caregivers for successful maturation. AAP (2016)

As pedagogic theory says that interaction improves learning, parent interaction with iPads increases the child's engagement with the media and with the understanding of the content. The interactivity of the iPad touchscreen enhances interaction and may increase the educational potential of having direct and immediate feedback on the child's capabilities, thus scaffolding their learning, as Vygotsky believed children's development and learning are embedded in social environments, where children learn from their interactions with the world around them.

AS digital literacy is now encouraged across the curriculum, the iPad can be used within all aspects of the classroom, to reinforce learning with interactive games and to aid understanding of the real world. Donaldson (2015) Differentiation can be managed when involving a tablet as a child can move forward in an educational game only when he is ready although scaffolding is easily used as a tool to help lower and higher ability children in their understanding of the topic.

Evaluation of the use of Smart Toys

Smart toys are a common theme within the home as children play with digital toys more and more, with the global sales of smart toys expected to grow from 3.87 billion to 5.41 billion by 2024, it's safe to say that smart toys are here to stay. Some are strictly for entertainment purposes while others have an educational element as well and can be a great tool for teaching children various skills through their interactive features. Kaur (2018)

A holistic understanding of a child's digital life outside of the school is important if teachers are to engage the child fully within the school setting. Although it is also important schools do not put demands on parents to get the latest smart toys as they are very expensive. Brito et al (2018) states that parents that use at least one digital device in the home at least once a day were more likely to own smart toys. Also, the medium and high income families were most likely to own smart toys as the levels of parental education and income were important in shaping the child's perceptions towards digital media.

Parents in the Portuguese tests were found to report the apps available for the smart toys could stimulate children cognitively, according to Brito et al (2018) The children were reported to have used several senses and fine and gross motor co-ordination. The toys also stimulated logical and strategic thinking. However, there are negative aspects as the children did not partake in family time, not wanting to play outside with friends, thus deciding the smart toys could take the place of outdoor activity, if allowed.

Brito et al (2019) reported their findings reveal that parents have mixed perceptions about smart toys—they value their educational potential but fear an excess of technological play and consider them expensive. Brito et al found smart toys in a few homes, observing early stages of domestication, with smart toys becoming part of an “ecosystem” of other toys and activities, but still with a “novelty” status.

There are other major concerns with smart toys however, as Anne Longfield, the Children's Commissioner for England, said:

“A child’s personal information should not be used in a way that leads to them facing disadvantage as an adult, yet that is a possibility we are facing. We urgently need to introduce safeguards to minimise risks like these, while allowing data to be used positively to improve public services and customer experiences. internetmatters (2018)

It has been discussed over the last few years that with the prevalence of smart toys, there is a concern that they may be storing our children’s details, which are being transferred into the cloud. Which can be easily accessed with a website and a password.

The BBC News (2017) has recently reported that certain interactive smart toys have been found to be easily hacked and any device within physical range could link to the toy and take control or send messages to the child using it.

Manufacturers and retailers that stock these smart toys must be made aware of the risks involved to our children and knowing that they are potentially putting children at risk is quite unacceptable. BBC News (2017)

In the United States of America, smart toys are being used by the education system to provide opportunities for student development in all domains according to Crompton et al (2018)

It was shown that humanoid robots that have been used within the school setting can be used in early childhood classes to promote learning in social and emotional development, language and communication, cognition and perceptual, motor and physical development. It was found by Crompton et al (2018) that children within the setting could interact with the robot, making it easier for the child to pick up social cues. The children showed an element of care giving towards the robot, treating it more of a peer than a toy, accepting it, especially when it appeared to need help or when it seemed to be in trouble.

This acceptance of the child to interact and help a robot shows the social interaction of children to be accepting and it also shows the benefits that might support teachers

and education leaders and also the benefits of the children, if the robots are used as a teaching resource within the classroom.

As smart toys seem to be a new addition to family and school life, in the form of Lego and various building blocks, teddy bears and dolls, the interactive toy is aimed at both genders. This makes the educational toy a relatively new idea, we must ask ourselves if they work and are worth the expense and time spent on them.

Today we understand that play stimulates the brain and to repeat play and all aspects of problem solving, through play, is greatly beneficial to our children. According to Dewar (2015) on the negative side, there is evidence that playing violent video games makes people feel less sympathetic to victims and more aggressive towards people in general.

However, educational digital toys and games for use at home and in the classroom can improve special performance, encourage children to be helpful and empathic and also promote resilience in children.

Parents of young children have mixed feelings about digital technology. On the one hand, they want their child to develop strong digital skills; on the other hand, they favour 'old-school' physical activities such as playing football outdoors. Parents don't generally want their child to sit in front of a screen for long periods of time. Zaman et al (2017)

Also, from the perspective of the parent, as inventors of these interactive digital toys become better at establishing an exciting wave of interactive toys, the parent needs to be aware of the rising costs, not only in purchasing the toy but also in the child's prolonged and developed use as they frequently need updates and unlocking, which can become expensive. Zaman et al (2017)

Section 2- Analysis of an Activity

Currently in Year 1, we are learning about Fairy tales, surprisingly, many children do not read fairy tales at home regularly and we find that increasingly children have no knowledge of these traditional stories which promote literacy and understanding of the world.

The activity in an EYS, is to follow a fairy tale of the child's choice, on the i-Pad. They can choose to listen to the story being read, watch the story being read or watch a BBC cartoon of either Goldilocks and the Three Bears or The Three Billy Goats Gruff.

During this fairy tale, the child will listen to the language and will be encouraged by the adult to join in with the repetitive aspects of the story, joining in with the reader or the dramatization.

The child may want to watch or listen to the reader several times if they are unfamiliar with the story as they will then be asked by the adult to act out the drama using their imagination and whatever they can find within the classroom, to interest them.

During the dramatization, one of the children will be each character and one child will film the play on the iPad.

At the end of the play, the children will watch the footage and will then be asked to evaluate their play, also being filmed, this time by the adult. They can assess what they liked what they didn't like and how they could improve their work, ending with one positive comment about the peer next to them.

This will pave the way for peer assessment in the future, where they have to be critical and complementary about a child's work in key stage 2.

When we have finished the dramatization of the chosen fairy tale, each group will be given a page in a book to decorate and a QR code of the dramatization and a QR code of their evaluation will be stuck in and it will be displayed in the classroom. The children will then be encouraged to look at each other's work and put comments on that page, if they would like to in the form of 2 stars and a wish.

The 2 stars being what's good and the wish, what could possibly be improved.

This activity supports the Digital Competence Framework by including literacy, numeracy and digital competency, equally, making each of the subjects important in the activity. Dauncey (2015)

The child will have, as laid out by the DCF, access to learning new skills which will promote the use of digital media by confident users. The child will learn from both his competent adult and his scaffolding peers, how to use an iPad to watch video footage of a story being read. From this interaction, the child will be able to confidently use this process in the future.

The use of filming the child telling the fairy tale will enable him to use the iPad creatively, and critically, possibly being shown how to delete footage he is not happy with and also how to zoom in and out for close ups, depending on the children's competency in using the iPad.

However, this is not primarily an ICT lesson, but has been planned to be a cross curricular themed activity, the child will be assessed on all aspects of literacy, numeracy and digital literacy.

The activity will be totally child lead, from the choosing of the fairy tale to the decisions regarding the role play and the character portrayal. As it is a cross curriculum theme, it can be used to tick off many strands of the DCF and the LNF, as the adult overseeing the activity will be expected to make notes of each child's involvement.

The child, while using the first strand of the DCF, citizenship, will share his identity within his peer group, he will allow the children to interact with both himself and others, understanding the filming of the activity will appear online and be available for others to access, he will be responsible for his behaviour and understand he would have to work as a team within his group. This is a big responsibility for each child within the group to work together, to negotiate and agree on the chosen outcome of the video. The well-being of the group might be compromised by one child's inability to agree on a subject and so they will have to learn to negotiate, with the adult's help if necessary.

The children will also need to learn their digital rights under the citizenship strand, they will need to know once the video of their role play has been shared with the school in

the form of a QR code, they lose control of who can watch it and when. There are lots of conversations that can be discussed simply, enhancing the children's knowledge of the DCF and how it affects our daily lives.

The child will be observed on his ability to interact with others and his communication skills in sharing and collaborating with others in the activity, as stated in the second strand of the DCF, interacting and collaborating, showing how the group can support one another. He will also show how he can decide on a subject or story, diplomatically taking others opinions into account.

Vygotsky (1978) states, collaborative learning can be seen to occur through dialogue, social interaction, and joint decision-making with others, and these shared processes contribute greatly to individual and collective growth, as well as to co-constructed understanding and knowledge. Barfield (2016)

The child will also need to decide on how their work will be stored and shared, in relation to strand two. He will need to decide if he wants to share the film of his role play, and he will have to make that decision as a group. This could be a difficult decision to make with peer pressure and the tendency for young children to please adults, however, it should be made clear to the children, it is their decision to make the film public as this is a child led activity and they have rights according to the UNCRC, article 12, 'You have the right to give your opinion, and for it to be taken seriously'.

He will show how he can search the internet, as stated in the third strand of the DCF, producing, with some adult supervision, and deciding on appropriate features to watch as the adult converses about what is a sensible way of looking online and how it should be researched and checked by an adult.

The children will also show how he can evaluate and improve the overall activity by watching it on the iPad, analysing the collaboration of both himself and his peers, giving considered feedback on the good and improvable parts of the activity in the form of two stars and a wish.

In the fourth strand of the DCF, data and computational thinking, the children will demonstrate their problem solving as they decide who plays which part and who films the activity. This would be discussed by the group of children, the adult only becoming

involved in the decision making if she has to model good interaction and turn taking of opinions.

The need for a comprehensive Digital Competence Framework was a key recommendation of Professor Graham Donaldson's report, Successful Futures, reflecting a proposal from an independent ICT Review Panel in 2013. The Panel's report to the Welsh Government noted that digital competence is as important in the DCF which has been structured using year-on-year progression statements. This is similar to the structure of the National Literacy and Numeracy Framework (LNF). WAG (2016)

When the Welsh Government implemented the Foundation Phase, they set out a statutory curriculum in 2013 called the Literacy and Numeracy Framework, The LNF. The DCF is a natural enhancement, adding digital literacy to the foundation phase framework of personal and social development, well-being and social interaction as well as independence, behaviour and engagement, to name a few. However, as with the LNF, the DCF is designed to recognise that not all children progress in the same way. The statements provide clarity about learner progress for planning purposes but should be used within the context that learners will progress further or faster in some aspects than in others and that learning will often span several years.

The DCF in its current form has been developed to complement the current curriculum, including Foundation Phase, ensuring that learners develop the basic skills that will be built on as they progress through their education.

The teaching staff will not be judged on the DCF specifically, but it must be implemented across the curriculum, being woven into every aspect of school subjects, with literacy and numeracy. The way it has been designed recognises that the statements or strands, provide clarity about learner progress for planning purposes. Even though it understands not all children progress in the same way, it does state that some learning will often span several years.

Donaldson has delivered the DCF as a new structure to learning to provide links to future employment. Donaldson (2016) states, children and young people need to learn how to be more than consumers of technology and to develop the knowledge and

skills required to use that technology creatively as learners and future members of a technologically competent workforce. The needs of employers and the workplace are also seen as vital if young people are to move smoothly and successfully into employment. In particular, concerns about the scientific, technological, engineering and mathematical (STEM) competences of the future workforce have influenced the relative priority given to these subjects.

This is why the need for DCF within our schools is relevant now, the foundation phase child who is learning numeracy, literacy and digital competency through his learning and role play of a fairy tale today, although distinct from an ICT lesson, is never the less, closely interlinked and will facilitate his digital competency in the future. Donaldson (2016).

The DCF also supports the child with additional learning needs by withholding pressure to learn and understanding the earlier skills might need to be taught first, implementing the Route for Learning skills. These skills form the foundations which may be built upon in the future, and they are individualized for each learners pace and current stage of development, which like all children, will be totally different for each child.

Vygotsky developed the concept of the *zone of proximal development* (ZPD) to extend the notion of intelligence. Rather than seeing intelligence as something to be measured individually, he suggested that intelligence was better understood as what a learner could do with skilled help, which is what a child with additional learning needs might need, teaching of the DCF on a need basis. Barfield (2016)

Online Safety Tips For Parents Of Early Years Children

Over half of 3-
4 year olds use
tablets!

According to OFCOM

47%

of parents
think their child spends
too much time in front of
a screen!

Guidelines and Top Tips!

- **Use friendly search engines like www.kidrex.org**
- **Limit screen time**
- **Put parental controls in place**
- **Lead by example-**
Be aware of your own online behaviour and use.
- **Use strong passwords**
- **Make meal times mobile free**
- **Set sensible limits**
- **Remove devices from bedrooms-**
only use technology in a family room
- **Encourage alternative activities**

Young people have been born into a digital age and they are going to see and use digital technology as part of their lives. However, the world wide web is not designed for children, even though 1/3 of the 3 billion users are children!

(According to Digital Childhood 2018)

Listen to your Child

Encourage your child to talk and question the games they play online, start a dialogue now, if you don't know the answer, find it together. (Ofcom 2015)

Search Safely

Use safe search engines such as swiggle.org.uk or kids-search.com. Safe settings can be found on You Tube and Google too. More information can be found at google.co.uk/safteycentre. (internet matters.org)

Explore Together

Children respond well to adult help and support, and parents are concerned about their child's access to advertising online, according to Ofcom, 21% of parents are concerned about their children feeling pressured to make in-game purchases while 1 in 8 parents are concerned about the amount of money being spent on the latest games, concerns being higher from parents of boys. (Ofcom 2015)

Help them to Learn Through Games

Games are a great way to learn about the world we live in and also can support the child's learning in school. By providing educational apps, which can be fun, parents can support learning and also spend time with their children, having fun. (internet matters.org)

Cyberbullying

It is not too early to teach children about bullying online and how they should deal with it. All schools must have a clear policy on bullying, in all forms and as a parent, you are entitled to see it as it should be implemented by the whole school community.

Our school makes reporting abuse easier.

Understands and talks about bullying

Can promote and teach positive use of all media.

(child international)

Strong Passwords

Encourage your child to use a password which is difficult to guess for the average user. You will need to use upper and lower case letters, numbers and symbols, it is a good idea to encourage strong password use, whatever the age of your child. It is also vitally important the child understands the need to never share the password with anyone, treat it like your personal property. When working with younger children, ask them to make up a sentence or phrase that is special to them and then have them change it into their own secret code works best.

(sticky password 2015)

Technology Free Homes

In Australia it is recommended that children aged 2-4 years old are limited in their screen time to less than one hour a day and spend at least three hours a day doing some form of physical activity. Children of 5 or older are recommended to have a limit of 2 hours a day of screen time. According to Huber et al (2018)

It is recommended in Britain we follow the Australian lead and restrict the amount of screen time our children have on a daily basis.

Parental Controls

Parental controls are of significant benefit to the child's online experiences. As children today spend so much time on You Tube, there are guidelines that can be followed to help your child stay safe. You Tube suggests turning on "Restricted Mode" which can be found at the bottom of the You Tube page, This will restrict the material your child can access and it will give parents piece of mind as the child watches on his tablet or mobile phone.

The NSPCC also has a series of guidelines available and there are more resources on the BBC Stay Safe site.

All these website addresses are available at the end of the leaflet. NSPCC (2018)

Online Rules for Children



The Government has recently announced there will be new laws put in place to protect children online through legislation. The Government has committed to creating new online safety laws. A white paper will be published later this year to tackle legal and illegal harms from cyber bullying to online child exploitation. NSPCC (2018)

However, various children's charities and schools concerned about our children's safety have published advice and guidance on keeping our children safe online.

Some Useful Websites for Parents and Children

ThinkuKnow: www.thinkuknow.co.uk

ChildLine: www.childline.org.uk

NSPCC: www.nspcc.org.uk

Connect Safely: www.connectsafely.org

BBC WebWise: www.bbc.co.uk/webwise

Get Safe Online: www.getsafeonline.org

Internetmatters: www.internetmatters.org

Childnet: www.childnet.com

Parent INFO: www.parentinfo.org

BullyingUK: www.bullying.co.uk

Age rating of games: www.common sense media.org/game-review

Gambling advice: www.gambleaware.co.uk

Eating disorders advice: www.nhs.uk/Livewell/eatingdisorders/

Tackling extremism: www.activechangefoundation.org/

Reference List

Barfield,. A. (2016) Collaboration. *ELT Journal*.
<https://academic.oup.com/eltj/article/70/2/222/2397884>
[Accessed 26.2.2019]

BBC (2017) Technology: Connected toys have ‘worrying’ security issues. <https://www.bbc.co.uk/news/technology-41976031>
[Accessed 1.3.2019]

Brito,. R. Dias,. P. Oliveira,. G (2019) The Domestication of smart toys: Perceptions and practices of young children and their parents.
https://link.springer.com/chapter/10.1007/978-3-030-10898-4_6
[Accessed 1.3.2019]

Brito,. R, Dias,. P. Oliveira,. G. (2018) Young children, digital media and smart toys: How perceptions shape adoption and domestication. *British Journal of Educational Technology*. Vol 49. No 5. (2018)

Burns. A., de Silva Joyce. H. (2005) *Teachers’ voices: Explicitly supporting reading and writing in the classroom*.
http://www.ameprc.mq.edu.au/docs/research_reports/teachers_voices/Teachers_voices_8.pdf#page=15
[Accessed 26.2.2019]

Chassiakos, L. Radesky, J. Christakis, D. Moreno, M. Cross, C. (2016) Children and Adolescents and Digital Media. *American Academy of Pediatrics*. Vol 138, issue 5, 2016.

Child International <https://www.childnet.com/resources/cyberbullying-guidance-for-schools>
[Accessed 1.3.2019]

Clark, C. and Teravainen, A. (2017) *Enjoyment of Writing and its Link to Wider Writing: findings from our Annual Literacy Survey 2016*. London: National Literacy Trust.

Crompton,. H. Gregory,. K. Burke,. D. (2018) Humanoid robots supporting children’s learning in an early childhood setting. *British journal of educational technology*. Vol 49 no5 (20018)

Danby, S. Evaldsson, A. Melander, H. Aarsand, P. (2018) situated collaboration and problem solving in young children's digital gameplay. Vol 49, no 5, 2018.

Dauncey., M. (2015) Donaldson Review: *His Critique and Vision*. National Assembly for Wales Research Service.
<https://seneddresearch.blog/2015/03/16/donaldson-review-his-critique-and-vision/>

[Dewar., G. \(2015\) Smart toys and educational games for kids: An evidence-based guide. https://www.parentingscience.com/educational-games-for-kids.html](https://www.parentingscience.com/educational-games-for-kids.html)
[Accessed 1.2.2019]

Digital Childhood. *Addressing Childhood Development Milestones in the Digital Environment*.
https://5rightsfoundation.com/static/Digital_Childhood_report_-_EMBARGOED.pdf
[Accessed 25.2.2019]

Donaldson., G. (2015) *Successful Futures. Looking at the curriculum and Assessment Arrangements in Wales*.
<https://beta.gov.wales/sites/default/files/publications/2018-03/successful-futures-a-summary-of-professor-graham-donaldsons-report.pdf>
[Accessed 26.2.2019]

Dunn, J. Gray, C. Moffett, P. Mitchell, D. (2018) 'Its more funnier than doing work': children's perspectives on using tablet computers in the early years of school. *Early Child Development and Care*, vol 188, issue 6, 2018.

Dunn., J. Sweeny., T. (2018) 'Writing and iPads in the early years: Perspectives from within the classroom'. *British Journal of Educational Technology*, vol 49, no 5, 2018.

Goldshmidt., G. (2018) Should our kindergartens and our schools be electronic media free zones? *American journal of education and learning*. Vol 3. No 1 (2018)
[http://onlinesciencepublishing.com/assets/journal/JOU0024/ART00237/1535610011_AJEL-2018-3\(1\)-44-53.pdf](http://onlinesciencepublishing.com/assets/journal/JOU0024/ART00237/1535610011_AJEL-2018-3(1)-44-53.pdf)

Internet matters team (2018) *What data are websites and apps collecting about your child? New report shines a light.*
<https://www.internetmatters.org/hub/news-blogs/what-data-are-websites-apps-collecting-about-your-child-new-report-shines-a-light/#1502359495755-2373e7a5-3f30>
[accessed 1.3.2019]

Kaur,. P. (2018) Guide to Tech: Buying a smart toy- tips for parents.
<https://www.internetmatters.org/hub/guidance/guide-to-tech-buying-a-smart-toy-tips-for-parents/>
[accessed 1.3.2019]

Livingstone, s. Mascheroni, G. Dreier, M. Chaudron, S. Lagae, K. (2015) How parents of young children manage digital devices at home: The role of income, education and parental style. London: EU Kids Online, LSE.

NSPCC (2018) <https://www.nspcc.org.uk/what-we-do/news-opinion/new-laws-to-protect-children-online/>
[Accessed online 1.3.2019]

Radesky., J. Schumacher., J. Zuckerman., B. (2015). *Mobile and Interactive Media Use by Young Children; The Good the Bad and the Unknown.* <https://pediatrics.aappublications.org/content/135/1/1>
[Accessed 26.2.2019]

StickyPassword. (2015) Teaching Kids about Passwords.
<https://www.stickypassword.com/blog/teaching-kids-about-passwords-3099>
[Accessed 1.3.2019]

UNCRC. Rights of the Child. Article 12.
<https://www.unicef.org/rightsite/files/uncrcchildfriendlylanguage.pdf>
[Accessed 23.2.2019]

Welsh Government (2016) Digital Competence Framework. Your Questions Answered.
<https://learning.gov.wales/docs/learningwales/publications/160831-dcf-your-questions-answered-en.pdf>
[Accessed 20.2.2019]

Welsh Government (2015) Foundation Phase Profile Handbook

Yellend, N. (2018) A pedagogy of multiliteracies Young children and multimodal learning with tablets. *British Journal of Educational Technology*, Vol 49, No 5, 2018.

Zaman,. B. Holloway,. D. Green,. L. (2017) The internet of Toys: Implications of increased connectivity and convergence of physical and digital play in young children.

<https://blogs.lse.ac.uk/parenting4digitalfuture/2017/07/19/the-internet-of-toys-implications-of-increased-connectivity-and-convergence-of-physical-and-digital-play-in-young-children/>

[Accessed 1.3.2019]