

Section 1

Critical evaluation of digital devices.

Over the years, digital devices have become a large part of children's lives. A report revealed that children were most likely to use a tablet e.g. iPad, the next popular device was a smartphone, followed by a laptop or computer and finally a games console e.g. PlayStation or Xbox (Ward, 2018)

Turner (2018) reveals that most children aged three and four years old now own an iPad of their own. This is equivalent to 54 percent of children owning their own iPad which has risen from 47 percent last year. Supposedly, this will soon become the norm and every child will own their own device as the number of children with iPad's is rapidly increasing.

iPad's

Although activities such as reading and physical activity are important in children's lives, digital devices such as iPad's have become very popular. Many parents and carers do rely on iPad's to entertain their children whilst they are busy, this receives different opinions and views. Some parents argue that children should not use iPad's at all whereas others argue that it is not a problem if they are used along with a range of activities rather than solely relying on iPad's (Plowman, 2019).

According to Yelland (2018) children using iPad's to learn encourages multimodal learning. This is because the children can learn through multi-sensory modes for example, visual or auditory. Children are encouraged to use iPad's to learn literacy, for example they use applications or games to encourage reading or spelling and this provides the children with the ability to learn in different ways as all children learn differently. Although this is the case, when children go home from school they spend very little time writing and spend more time on their iPad's, then when they are asked to write when they are in school, it becomes a difficult task to stimulate them as writing on paper is not as entertaining as literacy applications or games on iPad's but currently children have to write in the traditional way as this is how they are tested during assessments and national tests (Dunn, 2018). This makes it difficult to balance out writing on the iPad's and traditional writing on paper as

children enjoy using the iPad's more, but they are assessed using traditional methods of writing.

Although there is a differ in opinions when it comes to children using iPad's, it cannot be denied that iPad's have become a big part of childhood regardless of opinions. As Bramley (2017) explains, children are introduced to technology at an early age and when they go to school, they are encouraged to use devices such as iPad's. This means that they should have the ability and understanding to use them correctly and effectively otherwise they could be at a disadvantage. Although this is the case, children should be encouraged to use iPad's safely and learning how to use iPad's could be an activity that is completed several times before children can play on the iPad. Supporting young children when they are using an iPad links to Lev Vygotsky's theory on scaffolding children's learning. This is due to children learning from not only adults but from their peers. Some children are more experienced in using iPad's and could support other children. For example, children could be supported in taking a photograph on the iPad and once they have accomplished this independently, they could then move on to learning something else. Not only does this enhance their digital skills but it enhances their social development and communication skills as they are working closely with a more knowledgeable other (Kirova and Jamison, 2018). Coccozza (2014) argues that in some cases, children do not need a more knowledgeable other as they are the more knowledgeable other. Many young children are more capable of using iPad's than some adults and will often support adults in showing them how to use an iPad, this means that it should be recognised that adults do not always have to be the more knowledgeable other as in some situations children are more advanced and capable than adults.

According to the autism spectrum disorder foundation (2019), iPad's can be very useful for children with autism as iPad's supposedly provide children with further opportunities to enhance their cognitive development as well as their communication skills and motor skills. Silton (2014) supports this and explains that iPad's offer many positive aspects for children with autism. One positive aspect that iPad's provide is that they are more appealing to children with autism as they receive instant praise from them. For example, if they are playing a learning game, when they do something correctly, they will be rewarded instantly rather than seeking approval

from an adult who may be occupied with something else. Also, iPad's provide children with autism with visual cues, for example the child can see the routine that they have to follow visually rather than it being relayed to them verbally. Finally, iPad's can provide children with visual timers to encourage children with autism to develop their time management skills. For example, if a child is told that they need to wait for something, a timer can be set for the child so that they know when it is their turn which will allow them to cope better. On the other hand Lonie (2014) argues that there are some risks in encouraging children with autism to use iPad's, children with autism may be at risk of becoming addicted to the iPad and this can make using the iPad negative rather than positive. Children with autism often become obsessed with things they enjoy, for example if a child with autism likes to play with the cars, if they play with them too much, they can then become obsessed and unable to play with anything but the cars, this also applies to iPad's. Being addicted to iPad's could cause children with autism to pick up negative habits. If a child is playing violent, aggressive games a lot, they are likely to start behaving in a violent way as they are seeing it regularly. This links to Bandura's theory on social learning as he argues that when children see certain types of behaviour often, they will eventually begin to behave this way. Children with autism may not understand the consequences of the negative behaviour they are displaying, and this could make it difficult to manage (McLeod, 2014).

Smartphones.

According to an agency reporter (2018) twenty five percent of children aged six or under have their own smartphone and some spend up to twenty-one hours a week on their smartphone. The most popular brand of smartphone was Samsung closely followed by Apple.

Smartphones could be useful for children due to their ability to access the internet whilst on the move. For example, children can play games, or watch videos whilst they are out of the house. Many children do not enjoy going shopping with their parents, to keep them occupied they could play games on their parents' smartphones (Mascheroni and Olafsson (2014). Dolan (2018) disagrees with children being given

smart phones to pacify them or to distract them as it reduces parents or carers abilities to develop social interactions by pacifying them in the traditional way. By pacifying and supporting their children in the traditional way, children and parents form bonds and positive relationships, also they learn social cues off each other allowing them to understand one another's behaviour. This links to Skinner's theory on operant conditioning as children are given their parents smartphones due to being fussy or their parents wanting to distract them. The children will notice this, and it is likely that they will behave negatively when they are out with their parents as they know that they will receive the smartphone to distract them (McLeod, 2018). If children are provided with encouragement and praise from their parents rather than being given their smartphone, they will be encouraged to behave positively.

By having access to smartphones, children can access a variety of applications and games, one application especially has been developed to promote and support children's well-being in relation to their online activity and relationship with their smartphone. The application is called 'Own it' and has been created to provide children with information on how to use smartphones safely, it also provides them with access to support if they are struggling or need support. Although this seems like it would be for older children, as stated above many children access their own smartphone from a very young age and this age keeps getting lower and lower, this application could help and support young children to ensure they are provided with knowledge on how to be safe with their smartphone (BBC, 2018). Although this application seems useful, Laurciella et al. (2014) argues that children's relationship with smartphones are based around parents attitudes to smartphones. This means that parents who use their smartphone a lot are more likely to have children who like to use their smartphone. Also, parents who understand that children are going to use smartphones and support them in this rather than banning them are more likely to have children who go to them for help and support when using their smartphones. For example, if a child has parents or carers who support them with their smartphone and give them advice and support to be safe, they are more likely to talk to them if they have problems like cyber bullying or feel unsafe rather than relying on an application. American Academy of Paediatrics (2018) supports this by explaining that technology is so prominent in children's lives that parents should encourage them to

accept it and they should support their children in their digital journey by teaching them the skills that they need to use technology and smartphones safely and effectively.

Games consoles.

Digital play is a concept that has recently been formed, it relates to children using their digital games in real life, for example role playing their favourite characters from their Xbox or PlayStation games. Children's digital games are highly integrated with their real life (Henderson and Romeo, 2015). This means that rather than playing in the traditional way, children are playing their digital games and acting them out in real life. This links to the Cultivation theory which is based around the idea that the media has an influence on how individuals think and act. For example, if a child is playing violent, aggressive games on their games console they are likely to think that this is how they should act. Also, some games portray women in a specific way, children seeing this constantly could cause them to value these views themselves (Burke, 2015). Turner (2018) argues that the games are not necessarily to blame, and this is due to them having an age guidance. All games have an age guidance which explains how old individuals should be before being allowed to play them. Parents are not taking these age guidance's seriously and are allowing their young children to play games which are rated an eighteen. This means that children are being exposed to unnecessary graphic violence and sexual content. Games consoles provide children with the ability to express them-selves and be creative, they also provide children with the ability to relax and enjoy just like adults do with their hobbies. But at the same time, children tend to become addicted to these games and want to play them a lot. It is important for parents to ensure their children are not spending too much time on these games as this makes them unhealthy and could cause a negative impact on their well-being and social development (Robertson, 2014). Although, Beresin and Olson (2010) argues that gaming on these games consoles provides children with the ability to develop their social skills as it encourages them to meet new people when they play online and to form new relationships. Also, it allows children to reinforce existing friendships as children can play with them frequently rather than being left out of their friendship group if they do not have a games console. Although, ensuring parents, carers and practitioners

educate children about being safe online when talking to people is important as there is a risk that they could be talking to someone who could harm them. This links to article 3 of the United Nations Conventions on the Rights of the Child as it explains that everyone who is involved with children should do what is best for them (Children's Commissioner for Wales, 2019). In this case, this would be ensuring that the children are safe and protected and that their well-being is being taken care of.

Overall, there are lots of positives and negatives regarding digital devices and what they provide for children. Most digital devices provide benefits and it is left to parents, carers and practitioners to ensure the benefits are outweighing the risks and that children are using the digital devices for positive and effective play or learning rather than having a negative impact on children's well-being and social development.

Section 2.

Critical analysis of an activity based on ICT.

Activity title: Making a movie or poster.

Age of children: 4-5 years old.

Ratio: Usually the ratio would be one adult to 6 children, the children were still in the classroom so there were more adults around, but one adult was solely observing and supporting this activity with the group of 6 children.

Adults role: The adults role for the activity was to be near the children to support them if they need it. The adult should follow the children's lead rather than leading the activity themselves.

Resources:

- Costumes.
- Props.
- iPad.

Location: The castle role play area in the classroom.

Preparation time: 10 minutes.

Activity time: 30 minutes but this is flexible and based on the children's enjoyment.

Aims of activity:

- To encourage the use of the iPad to record or take photographs of the children, developing their ICT skills.
- Provide an opportunity for the children to enhance their creative development by recording a movie or making a poster based on their ideas.
- Providing the children with the ability to develop their ICT skills by connecting the iPad to the whiteboard to show the rest of the children.

The activity:

The children in reception have been working on the topic 'castles' and the activity was linked to this topic. The children were provided with fancy dress costumes relating to their topic, these included princess and queen costumes, knights and kings. They were also provided with props such as horses and shields. These costumes and props were placed in the castle role play area in the classroom. The children have also been learning about 'Beauty and the beast' for their creative writing topic, and they have been learning some of the lines from beauty and the beast. The children were provided with an iPad and encouraged to make their own movie or poster which they could then show the whole class afterwards. The children were able to work in groups and decide who would play certain roles and who would record the movie or take photographs. Once the children had recorded their movie or made a poster, they could then connect the iPad to the laptop and show it on the whiteboard for the class to view.

Firstly, the reason the activity was planned for a group of children was to promote the children's social and emotional development, this is because they had to work as a team to plan what they were going to do, also they were able to discuss and support one another when using the iPad (Early years careers, 2016). Another reason for planning the activity around a group of children was to provide children who lacked ICT skills with a more knowledgeable other to support them. Many children are advanced when it comes to their ICT skills, but other children may not be as confident using ICT as others. Children who are not very confident in their ICT skills would be able to learn from children who were very confident in ICT. This links

to Vygotsky's social learning theory as Vygotsky believed that children learn from a more knowledgeable other, just like the children with less knowledge in ICT (McLeod, 2018). Although this was the intention, the children who were confident in using the iPad tended to take the lead and the children who were less confident in using the iPad didn't have much involvement in using the iPad which meant that they were not learning many ICT skills from the activity. Therefore Price (2014) explains, children should be encouraged to play with new technology and should be given the opportunity to explore it so that they are able to use it effectively and they will be able to use it for purposes just like this activity. To improve this, when completing this activity again, a practitioner could provide the children with an easy guide on how to navigate the iPad which would have allowed them to explore and try to use it themselves rather than relying on someone else.

Beauchamp (2016) refers to Donaldson's belief that ICT or digital competency should be a cross curricular skill which teachers and practitioners are responsible for implementing throughout many areas of learning rather than solely teaching ICT skills for one lesson or activity. This is where the digital competence framework or DCF is useful for practitioners as it is a framework which concentrates on teaching and developing digital skills which can be applied to many other areas of learning or situations that the children may experience (Welsh Government, 2018). This activity not only developed the children's ICT skills, it encouraged development in many other areas.

According to Oladunjoye (2013) digital literacy is when children build, design and use various materials and technology, this can include multimedia. Multimedia is used in schools and early years settings to develop and encourage children's creativity. This activity used digital literacy to enhance the children's creative development as well as their ICT skills. This was good for the children's well-being as they were able to express themselves. James (2010) suggests that children need to experience technology and digital literacy in order to support their well-being regarding ICT as if they do not explore ICT, they may find it difficult to express themselves and will not be able to independently use digital media. On the other hand, Alghamdi (2016) argues that by introducing children to ICT at a young age, it is more likely that it will

have a negative impact on children's relationships, and their health. Using technology at a young age could cause social isolation for the children as well as both mental and physical diseases such as depression, obesity and insomnia.

Firstly, this activity allowed the children to practice adding their name on to a piece of digital work as they had to put their name on their creation to ensure they could access it again, this links to the citizenship section of the DCF (Welsh government, 2018). This was useful for the children as it encouraged them to take ownership of their work and it enhanced their literacy development, the Welsh Government (2014) explains that throughout the writing strand of the literacy framework, the children should be able to copy letters or words.

Also, the children were working together as a team to create something to show the class whether it be a movie or a poster. This links to the social interaction section of the Foundation Phase Profile or FPP, the children would be meeting outcome three or four of this section as the children had to work together collaboratively whilst taking turns, discussing things and negotiating. (Welsh Government, 2017). As well as this it links to the DCF as the activity encouraged the children to work together to create a piece of work which is the skill that they should be working at in the interacting and collaborating section of the DCF (Welsh Government, 2018).

Also, the children were working on creating a piece of work through using multimedia for example recording or taking pictures. This again links to the DCF under the heading 'creating.' (Welsh Government, 2018). Throughout the activity there were many links to the DCF, FPP and the literacy and numeracy framework which mean that the activity was mostly cross curricula although, there was not any promotion of the children's Welsh language. Whitehead (2009) suggests that the promotion of the Welsh language is important in the early years and has been a compulsory subject for many years, Welsh should be promoted to the children through play-based activities which give them the opportunity to speak, read and write in Welsh. It was difficult to implement Welsh in to this activity as the purpose was to develop the children's ICT skills and there was not much to link between ICT and Welsh.

Tarasuik et al. (2012) argues that children who use iPad's and other technology regularly are more likely to be able to problem solve, have a wide range of

knowledge and develop well when it comes to their cognitive development. Many of the children in the group were able to problem solve when using the iPad, for example, when a child was trying to make a collage of pictures for their poster, he moved the iPad slightly and the screen rotated, the child tried to press the home button but realised this did not change the screen, he then moved the iPad sideways and the screen returned to normal. He did not seek assistance for this, he explored and used problem solving to fix it. This links to Piaget's belief that children are 'little scientists.' Piaget believed that children learn better through experimenting and exploring rather than learning facts and data in the 'traditional way' of sitting at a table and writing (Levine and Munsch, 2010). Some children who are not comfortable or confident with technology could find it useful to be given an iPad and allowed to explore to allow them to develop their ICT Skills and how to use the iPad rather than being taught as they may learn better through doing rather than listening and watching. However, Bandura's theory contradicts this as he argued that children learn from others behaviour. Children learn from people around them who are called 'models' and they witness how the models behave and what reaction this causes (McLeod, 2016). In this case, the children could observe somebody else using the iPad and identify what they do. For example, if they witness someone pressing on something specific and a game that they are interested in comes up, then they are likely to remember what the model pressed and will imitate them when they are on the iPad rather than exploring to find something else.

Overall, there are many aspects of this activity that enhances the children's ICT skills including their ability to record and take photographs. Also, this activity had relevant links to the DCF which ensured that the children were developing their digital literacy skills as well as other aspects of their development such as literacy and numeracy. The activity could have been improved by encouraging more holistic development throughout the activity and the activity could have been made more difficult for the children who were very competent when it came to using the iPad as they could have found it too easy which means that it would not have encouraged their development of ICT enough.

Children and ICT.



(Source: Google images, no date)

Cyber bullying!

When children are using the internet on their devices, they could be affected by 'cyber bullying.' Cyber bullying is a form of bullying which takes place online through applications, games or social media. This should be monitored as cyber bullying can cause serious harm to children. This is because it is constantly happening, and children cannot escape it as it follows them home rather than staying at school. The effects of cyber bullying include anxiety and stress as well as children feeling withdrawn and isolated (Stowell, 2016)

For young children, the main way to prevent cyber bullying is to stop children playing games online and if they do play online games then they should be encouraged to inform parents or carers if they receive negative comments from others (Newsbeat, 2014). There are no specific laws for cyberbullying in the UK however there are existing laws already in place that can be applied to cyber bullying cases including: Protection from Harassment Act 1997, Communications Act 2003 and Defamation Act 2013 (Anti-Bullying Alliance, no date)



(Source: Google images, no date)

It is easily recognisable that ICT (Information and Communication Technologies) is very current in children's early lives. As children are living in a world where technology is everywhere, children should be provided with the ability and knowledge to use technology correctly to ensure they are safe as well as being able to keep up with the fast –paced world of ICT (Spanswick, 2016).

The NSPCC (2019) argues that a good way of keeping children safe online is by ensuring there are parental controls in place. Parental controls stop children from accessing harmful sites, inappropriate applications and they can monitor how long children spend on their devices.

Stranger danger!

Safety net kids (no date) explains rules that parents, or carers should enforce regarding 'stranger danger' online. Children should be informed that they should not befriend strangers when playing games online and they should never give out personal details to people online. This is due to the concern that children may befriend someone online who is not who they say they are, and this could put them at risk of danger. On the other hand, according to Livingstone et al. (2012) the risk of children being in danger from stranger's online is quite minimal and this worry is revolved around a small number of cases which have been shown on the media and have caused alarm.

Inappropriate content!

When children are using the internet to search for information or watching videos on applications such as YouTube, there is a high risk of them seeing violent or gory images or clips. This is due to children clicking on sites which may be unsafe and have inappropriate content (Livingstone, 2009). Internet matters (2019) describes that the best way for parents or carers to protect their children from inappropriate content online is to ensure there are filters in place to block this content. Further information and support for this can be found at:

<https://youtu.be/TwaeI58dL1s> (E-Safety Office, 2015).



Source: Dalmain.Lewisham (no date)

Screen time!

Arnott et al. (2018) argues that young children are rather competent regarding technology, from a young age children can access and use touch screen devices such as Ipad's, access and navigate you tube and other apps as well as take videos and photos. Although these skills allow children to be digitally competent and to access a range of resources for learning according to Jary (2018) children spending too much time on these devices could be having a negative impact on their mental health and well-being. On the contrary, according to recent research, children spending lots of time on devices is not necessarily the problem, instead it revolves around the idea that it depends on the nature of the screen time. For example, if devices are used to calm children from tantrums then this can cause them to believe that they require a device every time they are feeling emotional and will rely on them (MacDonald, 2018)

The Royal College of Paediatrics and Child Health (2019) has lots of useful information based on appropriate screen time for children, please visit:
<https://www.rcpch.ac.uk/resources/health-impacts-screen-time-guide-clinicians-parents>

Social Development!

Children using technology supposedly links to a lack of social development. By using devices, children are less likely to socialise with peers, family and friends. This means that they may find it more difficult to socialise with others as they will not know how to (Walters, 2015). On the other hand, Plowman and McPake (2012) argue that digital media and devices do not hinder children's social development, instead it supports their social development by providing families with stimulation to discuss and watch or play together, also it provides children with the opportunity to communicate with people who they may not see regularly for example family who live far away. By using technology to communicate they are still able to form bonds and relationships with these people although they do not see them often. Digital media for children enhances many areas of development. For more information in these areas please visit:

<https://www.teachearlyyears.com/learning-and-development/view/using-ict-ins-the-early-years-foundation-stage>
(Ager, 2019)

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