

Module: ECEY5010

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I acknowledge the use of Google Scholar (Available at: <https://scholar.google.co.uk/>) for the purpose of research in relation to Module 7 – Research for Learning (ECEY5010).

I confirm that I have also kept my research notes should they be required.

1. Definition of social and emotional development in the early years
2. Importance of social and emotional development in the early years
3. Impact of digital devices on young children
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5. Quantitative and Qualitative methodology
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Section 1- Literature Review

An exploration into the impact of increased usage of digital screens on social and emotional development on children aged three to five years?

The rationale for conducting this piece of research is due to a limited understanding on the impact of increased digital screen exposure on social and emotional development of children aged three to five years of age.

Existing research tells us that the period from birth to five is a key window for children's learning and development. According to the Buckinghamshire Healthcare NHS Trust (2021) between the ages of three to five children's social and emotional development grows quickly as they gain more awareness of the world around them. Additionally, the Department for Education (2023) highlights social and emotional development as essential for cognitive growth and supports children to lead healthy and happy futures.

When referring to social development this means the ability to form relationships with both adults and peers. In terms of emotional development this means the ability to manage and express emotions appropriately, maintaining regulation (Yates et al. 2008 as cited by Darling-Churchill and Lippman, 2016). Darling-Churchill and Lippman (2016) also suggest that successful early experiences that enhance social and emotional development are associated with better long-term results for children as they learn to manage and maintain good relationships, leading to better access to more opportunities that subsequently promotes healthier lifestyles and improve health outcomes. Similarly, Askeland (2019) highlights the role of social emotional development for children in contributing to building the foundations of trusting relationships, learning to express emotions, and supports independence when exploring their environment. Additionally, Ashdown and Bernard (2012) as cited by Askeland (2019) emphasizes that social and emotional competencies are important for self-confidence, effective communication and problem solving.

Lissak (2018) notes that in current times children are experiencing digital devices as part of daily living and that the fast improvements in technologies mean that they are more accessible than ever with 52% of children aged zero to eight having access to

a mobile phone. Ofcom (2022) reports that the Covid-19 pandemic saw a shift in the use of digital devices with children using them to access online platforms to facilitate connecting to educational learning from home. Ofcom (2022) also stipulates that during 2021, seven in ten, 3–17year olds were using mobile phones and tablets. Panjeti-Maden and Ranganathan (2023) also highlight the growing range of different digital devices available to young children in all aspects of their lives from mobile phones, televisions, video games and smart gadgets. Clemente-Surez (2024) stress that the sudden widespread use of digital devices raises concerns among researchers, educators and parents about the potential impact it has on early childhood cognitive development. Especially when the World Health Organisation (WHO) (2019) guidance advises young children should not be stationary for prolonged periods and recommends screen time exposure should be no more than one hour for children up to the age of five.

Having defined and explored the importance of the role of social and emotional development for children this review will now examine current research on the impact of digital devices on children aged three to five. According to Carson et al. (2019) screen time in the early years is a debatable topic due to the current marketing that promotes digital devices to parents and children as educational and beneficial to cognitive developmental. However, Health Under 5s (2024) stipulates that digital devices do not provide the social interactions required to enhance social and emotional development for young children. Furthermore, they report early exposure to digital devices is associated with delayed language development which prohibits social skills and therefore it is vital to ensure children have meaningful interactions whenever possible. Likewise, UNICEF (2025) highlights that research indicates digital devices can reduce young children's ability to read emotions, learn social skills and manage frustrations, additionally, due to the constant stimulation that digital devices offer children they are unable to rely on themselves or peers for entertainment and miss out of crucial real-world stimuli that is essential for brain development. Culatta (2025) recognises the valuable work of Vygotsky and his theory on social learning which highlights the fundamental role of social interaction on brain development supporting current research that children need real life interactions and experiences to boost social development. Therefore, this suggests that increased use of digital devices for young children is reducing important

opportunities to interaction with parents, teachers and peers hindering social development. Similarly, Bandura (1977) another social theorist emphasized the valuable role of learning from others through observation in particular modelling of behaviour, attitudes and emotional reactions. This again suggests exposure to digital devices limits and prevents children having experiences and opportunities to learn from others. However, Flewitt and El Gemayel (2023) highlights digital devices as connecting children socially through video calls and this is positively impacting communication and social skill supporting children to maintain relationships and keep in touch with family and friends who they are physically separated from. The idea of staying connected with wider communities is something Froebel emphasized as important to children as they gain a sense of belonging, build relationships and connect with wider communities. Flewitt and El Gemayale (2023) also emphasize video calls as facilitating language development and imagination when experiencing playful interactions using digital devices. Furthermore, Marcos (2024) also acknowledges positive impacts of digital device on social development and language as users get to interact with a range of linguistics community across the globe increasing vocabulary and reading comprehension. In contrast however, Scairpon (2021) states that children who are high technology users scored lower in social and emotional well-being than low technology users. More importantly she reports that children who spend most of their time on digital device were easily distracted and had reduced self-control suggesting that higher digital device activity had a negative effect on the developing brain and limits social emotional abilities in children preparing to go to school.

In conclusion current research indicates a range of positive and negative impacts of digital devices on social and emotional development for children aged three to five. While there are suggestions that early and excessive use of digital devices contribute to hindering social and emotional development. There is evidence that digital screens when used moderately can add valuable educational benefits for children. This suggests that when used appropriately and as part of a balanced lifestyle digital devices can add value to children's lives. However, there is a lack of more longitudinal studies into the impact of digital devices and more needs to be done to explore other cultural and diverse aspects of digital device usage for children

aged three to five as most of the current research has been completed within western culture.

Section 2 – Methodological considerations.

When undertaking research on a specific topic the researcher needs to consider the appropriate type of research method they will use to collect their data. Hassen (2024) states there are different types of research methods from quantitative research, qualitative research, and mixed-method research. Each of these methods will offer researchers several types of techniques and strategies for collecting data, that can then be analysed in relation to their question. Verhoef and Casebeer (1997) highlights the advantages of quantitative research as beneficial in developing factual and reliable data whereas qualitative research develops rich narrative data giving insight to participants perceptions and interpretations. Furthermore, Lim (2024) emphasizes the use of quantitative research as providing objective data because it is measurable and expressed numerically, therefore the data can be generalised and compared. Additionally, Bhandari (2023) also stipulates quantitative research involving the analysis of numerical data, enabling researchers to find patterns, averages and relationships between variables. Furthermore, Lim (2024) highlights the role of qualitative research in yielding data from human experiences and points of view that provides rich information about perspectives and attitudes and can be used to support theories. Overall, both methodologies have a valuable role in research from providing factual and statistical information as well as contextual and meaningful insights.

Choy (2014) as cited by Queiros et al. (2017) emphasizes using both quantitative and qualitative research methods together will gather more reliable results than when using one single method in isolation and stresses that limitations of one method can often be counteracted by the other. This process of using two different methods of research is known as triangulation. Ramzan (2023) describes triangulation as the process of combining quantitative and qualitative methods to overcome the weakness and biases that single methods alone presents. Furthermore, according to Watsti et al. (2022) by using a mixed method approach researchers will gather results that are more reliable and form a deeper understanding of the research question that gathers data that reflects a holistic view

on the research. However, Office for Health Improvement and Disparities (2020) highlight that by using a mixed methods approach the research itself becomes more complicated for researchers, as the researcher is required to collect two sets of data to be analysed and integrated together. Having explored quantitative and qualitative methods of research, the researcher has decided to adopt a mixed method approach combining use of both quantitative and qualitative research methods, This is because the researcher feels it will ensure they reduce bias and increase the validity and reliability of the research question offering a more holistic view of the impact of digital devices on social and emotional development of children aged three to five. This will add depth and breath to the research through statistical data and data that reflects the attitude and context of daily life currently.

It is also important for the researcher to consider how this data will be collected. According to Ross and Zaidi (2019) all research is subject to limitations that may influence the findings and outcomes of that specific research, and it is important to acknowledge these to ensure transparency, identify gaps and offer opportunities to engage in improvements in future research. Robert-Holmes (2014) states quantitative data can be collected through questionnaires, statistical surveys and experiments whereas qualitative data is collected using observations and interviews. These methods also come with advantages and disadvantages that the researcher needs to consider. Taherdoost (2022) points out some of the disadvantages of quantitative methodology in the form of surveys and correlational research is that it can be time consuming and limits being able to explain social realities. Additionally there are also disadvantages of qualitative methods of research. Hecker and Kalpokas (2025) stress that interviews are time consuming and require the researcher to build up rapport and to ensure they fully understand the participants responses. They also highlight interviews as lacking in limited anonymity introducing social bias and perhaps participants willingness to share openly through fear of being judged.

Having explored the different types of methods used to collect data in research, the researcher has decided to use mixed method of quantitative and qualitative data in the form of parental surveys, observations and standardised assessments supporting the triangulation process and will offer the researcher more reliable and valid results.

Research Method

Sample Type – There are a range of different types of sampling from convenience probable and random sampling and the researcher needs to consider the best type of sampling method that will be useful for this research. Jagar, Putnick and Bornstein (2017) highlight probable sampling as excellent for gaining an unbiased and generalizable sample. They also stipulate the challenges this type of sampling creates due to the large size needed that in turn creates higher costs and time expectation to execute well. However, according to Golzar and Tajik (2022) convenience sampling has several benefits because it is less time consuming, cost effective and reachable for researchers, even though the sample may not accurately represent the wider population of three to five year olds. Therefore, the researcher has decided convenience sampling would best suit the purpose of this research selecting children aged three to five and their families from local pre-school/nurseries as they are accessible, easy to gain informed consent, and fit the criteria for the research question. The researcher notes however that this may mean the results could not be generalised to the whole of the early years population and does not include a diverse cultural view on the impact of digital devices on social and emotional development.

Sample Size- According to Andrade (2020) when choosing a sample size for research considerations need to be taken to be able to generalise the findings to the population as it would not be possible to study the whole population. He stipulates that sample sizes that are too big are unnecessary and samples too small unscientific and unethical. Therefore, as the purpose of this research is exploratory the researcher has chosen to use a sample of 30-50 children aged between three and five and their parents/caregivers. This also reflects similar sample sizes used in current research of the same topic. Additionally, to this the sample will also need to be purposeful. According to Dudovskiy (n.d.) purposeful sampling is a way of choosing a sample that will help answer the research question. Therefore, participants taking part in this research meet specific criteria related to the review question and only include children aged between three to five and their parents that

solely focuses on social and emotional development of children, they are a purposeful sample. By choosing a sample this size also factors in participants right to withdraw and the impact this could have on its results. Negida (2017) recommends that researchers enrol more participant than a minimum required sample to compensate for expected withdrawals from research and therefore reduces attrition bias within the results.

Parental Surveys– Parents have good insights into their children’s social and emotional development and way children access and use digital devices while their care. It would therefore be useful to seek parental engagement to gain greater understanding into the impact of digital devices on social and emotional development of children. According to Redaction Team (2024) surveys are useful tool in research as they are flexible, provide quantitative data, and can be anonymous encouraging more honest feedback from participants. However, they also highlight that surveys can be poorly designed and lack depth effecting reliability of data. This method was chosen over questionnaires to avoid parents responding in way they think the researchers want them compromising validity

Standardised Assessments – Early years practitioners involved in working with children complete standardised assessments on children to measure social, emotional and behavioural competencies to ensure milestones are being met and identify gaps in learning. These could be used when exploring the impact of digital devices on social and emotional development in children aged three to five to highlight gap in social and emotional development in those accessing digital devices a lot of the time.

Other considerations –When conducting research, it is also essential the researcher is aware of the Hawthorne and Halo effect that can impact research. McCambridge, Witton and Elbourne (2014) describe the Hawthorne effect as participants being aware they are being observed and therefore changing their behaviour to be socially desirable and conform by changing their behaviour to align with believed expectations. Additionally, Westbury and King (2024) describe the Halo effect as essentially a cognitive bias that forms judgement on people due to certain traits or what we believe about them. The researcher needs to consider both elements and take measures to reduce these within their research. Azarova (2023)

suggests building rapport, building relationships and observing participants in natural environment can support reducing the Hawthorne effect. Krockow (2021) suggests awareness of cognitive bias amongst all human, and analytic reasoning that relies on focusing on the objective data and to reserve judgement.

Section 3 – Ethical Considerations

The British Educational Research Association (BERA) (2018) requires researchers conducting research to recognise and ensure ethical considerations have been put in place to protect those involved in the research. By doing this it ensures that they are treating participants fairly, sensitively and with dignity and this also includes the researchers carrying out the research. NSPCC (2023) highlights that research involving children needs to be balanced with a clear justification for the purpose of the research, ensure the safety and well-being of children upholding their rights while minimising the risk of harm. Additionally, the University Wales Trinity St David (UWSTD) (2022) stipulates in its code of practice the expectation for researchers to maintain high ethical standards fostering honesty, care and respect supporting best practice.

Algahtani *et al.* (2018) state that historical unethical research and misconduct has influenced and shaped ethical guidelines and policies for current research studies. Reflection into these studies highlighted that participants were often left with lifelong implications and distress due to the research they were involved in. This emphasizes the importance of protecting and respecting participatory involvement in modern day research. The “Little Albert Experiment” conducted in 1920 is an example of a research study that lacked ethical consideration particularly in regard to reducing the risk of harm to a child. The experiment saw Watson and Rayner condition an emotional response in a child to fear white furry objects. Shelton (2024) describes this study as careless and highlighted several breaches of ethical standards that would exist today. These include lack of informed consent, failure to protect the child from harm, no right to withdraw and deception. Another study completed by Bandura in 1961 investigated how children learned social behaviour in relation to aggression through observational learning. Again, this research done today would warrant concerns over poor ethical considerations. McLeod (2025) highlights several breaches of ethical standards within this research in that the children involved in this research were exposed to violent behaviour by an adult thus encouraging children to learn harmful behaviour and Bandura also did not obtain informed consent from parents/guardian nor did he ask children if they would like to take part in the

research. However, without having these historical research studies that showcase concerning lack of ethical considerations and misconducts we would not have robust ethical guidance and policies supported by legislation that exist for educational research today.

In terms of this research, the researcher has identified various potential risks and harm that needs to be acknowledge and the researcher take responsible measures to ensuring they follow current guidance and legislation and take reasonable actions to manage and reduce them.

These include:

- Informed consent
- Assent
- DBS – Disclosure and Barring Service
- Confidentiality and Anonymity - GDPR
- Appropriate content exposure
- Right to withdraw

Informed Consent - When conducting educational research involving children researchers are required to obtain informed consent of participants. NSPCC (2023) stipulates that children aged 3-5 years cannot give informed consent due to limited cognitive capacity and understanding of what this means. Therefore, as this research involves children aged 3-5 years the researcher needs to seek informed consent from participants parents/guardian ensuring they fully understand what the research is for, the expectations for their children as participants, the risks and benefits of the research and that they have the right to withdraw at any time.

Assent- When conducting educational research involving children researchers need to consider in addition to obtaining informed consent from parents/guardians of the participants taking part in the research. They also have the extra duty of care to seek assent from the participating children. UNICEF UK (2022) promotes children's rights that have been outlined in legislation in the United Nations Convention on the rights of the child (UNCRC) these emphasize strict guidance for giving children access to rights of autonomy and expression of their own views. UNICEF UK (2019) state in article 3 and 12 of the UNCRC legislation that children have the right to express their

views, feeling and wishes and that the best interests of the child are to be considered in decisions and actions that impact them. Therefore, the researcher needs to ensure they give children the right and opportunity to express if they want to take part or opt out of any observational research. This includes monitoring children throughout the observations and research study and honouring clear indicators they no longer wish to take part and want to withdraw.

DBS – When conducting educational research involving children researchers and any person working with vulnerable groups particularly children under the age of 18 are required to complete an enhanced DBS check. UWTSD (2022) stipulates that DBS checking those working with children ensures that children are not exposed to those that have a history of harmful or unsuitable behaviour and therefore protects children's rights and ensures compliance with current legislation. UNICEF UK (2019) states in article 19 that adults have a duty of care to ensure children are protected from harmful or risky behaviour. Therefore, the researcher will ensure that those involved working with children in this research has the relevant checks and always act within the best interest of the child prioritising safety and well-being.

Confidentiality and Anonymity – When conducting educational research involving children researchers are required to protect participants personal data and confidentially. UK Government (2018) provides legislation documents related to the Data Protection Act (GDPR) this requires researchers to have purposeful and valid reasons for collecting personal data, responsibility to protect participants personal information, this includes storing data securely in locked or password protected areas to ensure no unauthorized access and to anonymise data where possible. Therefore, the researcher will ensure to only collect personal data relevant for the purpose of this research, the information will be stored on password protected documents and physical copies of personal data in a locked cupboard to limit unauthorized access to sensitive data and data anonymized as far as possible to limit the risk of participants being identifiable.

Appropriate content exposure – When conducting educational research involving children especially those aged 3-5 years, researchers need to ensure when conducting observations using digital devices that the content accessed by the participants is age appropriate and will not expose participants to harmful or

offensive content. Welsh Government (2024) reports that most online content is inappropriate for children as it contains offensive, upsetting and illegal material. Often children are exposed to this unintentionally and through accidentally accessing websites. Safe Search Kids (2025) highlights measures that can be taken to ensure children can be protected from inappropriate content, these include using age restrictions on digital devices, use child friendly platforms, monitor apps and websites closely. Therefore, the researcher will ensure the digital devices used for observational research will include age-appropriate restriction, use of child friendly apps and material and will be closely monitored by adults. This will reduce the likelihood of children involved in the research accessing or being exposed to harmful content.

Right to withdraw – When conducting educational research involving children researchers are required to ensure participants have the right to withdraw. BERA (2018) stresses the importance of researchers informing participants of their right to withdraw at any time and to also uphold the participants' rights to withdraw from research at given point or time by accepting participants' right to change their mind and withdraw. NSPCC (2023) also emphasizes the responsibility of researchers to be completely transparent to participant and families that there will be no consequences for withdrawing consent and to ensure they regularly check in with participants and families during research to ensure they feel safe, and well-being is not being compromised.

The researcher will take all the measures above to ensure they are mitigating the risk of harm to the participants, families, researchers and university ensuring that they uphold the high standards set out in the principles of current ethical guidelines, adhering to laws that protect participants and families. It is also important to note that researchers take measures to also ensure that they protect their own well-being

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