

Cover sheet

For this assignment I have submitted the following:

- Component 1- A literature review
- Component 2- Methodological considerations
- Component 3- Ethical considerations

I confirm that I have not used AI during this assignment.

I confirm that I have copies of my drafts, notes, and other resources I have used which I may be asked to provide as

An exploration into the use of iPads and screen time in early childhood education.**Literature review**

This literature review will explore the negative and positive effects of iPads and screen time use on children's learning, communication, behaviour, and social development in early childhood education and how parents, practitioners, and policies can influence this.

The use of iPads and screen time in early childhood education has significantly increased in recent years, both at home and within early years settings. During early childhood education, iPads can be used to support children's learning through educational games that promote literacy, numeracy, and engagement (Boh Young Lee, 2023). However, excessive or unsupervised iPad use may negatively affect children's speech and language development, social interaction, behaviour, and emotional regulation. Many children are also exposed to screen time before starting in a childhood setting or school, which increases concern about the use of iPads for both practitioners and parents (Boh Young Lee, 2023). Taylor, Monaghan and Westermann (2017) argue that excessive screen exposure in early education reduces opportunities for communication and shared play, however, Ponti (2023) suggests that structured and adult-supported screen use may still provide educational benefits. This highlights that concerns regarding screen time may have less to do with technology itself and more to do with how it is used within children's daily environments.

Screen time and iPads may provide many educational benefits when used effectively, as they can support children's counting, phonics recognition, problem-solving and independent learning (Neumann, 2018). Studies suggest that these digital tools may increase children's motivation and engagement, especially when this type of learning is being shown through play-based activities which can be familiar and enjoyable for young children (Dezuanni *et al.*, 2015). Boh Young Lee (2023) also highlights the positive effects screen time can have on young children by stating that when iPads are being used effectively within the classroom or setting, they can enhance their learning opportunities and encourage them to take part in educational activities.

In addition to this, iPads and screen time can also be beneficial for children with additional learning needs, as communication games can provide additional support for them (Karani, Sher and Mophosho, 2022). This may promote inclusion within early years education by improving access to learning for children who may struggle with concentration or hyperactivity during class, making it harder for them to engage and participate fully in learning activities. However, some studies argue that this can only be achieved when iPads are being supervised by adults and have clear learning outcomes, rather than for children's entertainment (Zhang, 2022). This highlights the importance of a practitioner's role in ensuring technology is used effectively rather than as an entertainment.

Despite the benefits that iPads and screen time can bring, they can still have a negative impact on children's holistic development when being used excessively. One of the main concerns is the effect they can have on children's speech and language development, as a child's early stages in life are crucial for developing their communication skills through face-to-face interaction and shared play experiences (Martinot *et al.*, 2021; Stevens *et al.*, 2017). Therefore, excessive screen time may reduce opportunities for social interaction and shared communication (Perdana, Medise and Purwaningsih, 2017).

An excessive amount of screen time can also affect how children build relationships within a setting, as children have fewer opportunities to develop turn-taking skills and engage in cooperative play, which are considered important social skills (Domingues-Montanari, 2017). This in turn can cause frustration or behavioural challenges for children during group activities such as circle time (Domingues-Montanari, 2017). Some studies suggest that fast-paced iPad use may cause overstimulation for children, leading to shorter attention spans and reduced concentration during classroom activities (Karani, Sher and Mophosho, 2022). However, not all studies agree that iPads themselves are the cause for this. Some argue that the issue is when they are being used excessively, unsupervised or for entertainment purposes only (Kourklidou *et al.*, 2024). This highlights the ongoing debate regarding whether developmental concerns relate to screen exposure itself or the quality of use.

Screen time can have many benefits but also cause many risks, and early years policies and professional guidance emphasise the importance of a balanced approach to technology for children. The EYFS Statutory Framework highlights the importance of a practitioner's support for children's cognitive and social growth through interactive experiences. Whilst technology can support a child's learning, children should still experience face-to-face social interaction and adult-child communication, as they are considered essential for children's overall development (Yelland and Gilbert, 2017). Furthermore, the EYFS framework emphasises communication and language as one of the most important areas of learning, which highlights the need for conversation, shared interaction and play-based experiences during early childhood, and excessive screen exposure may reduce these opportunities. However, when screen time is being used alongside adult supervision, it may support children's problem-solving, creativity and literacy development.

Research highlights that in early years settings, practitioners are often faced with challenges when trying to balance traditional play-based teaching with technology (Ludgate, 2019). This supports the importance of practitioners making informed decisions in early years settings, ensuring that children do not spend excessive time on iPads or in front of a screen, as it may negatively impact their health, sleep, or social interaction (Canadian Paediatric Society, 2017). This highlights the responsibility practitioners have in ensuring technology is used to enhance learning opportunities and support teaching strategies rather than being used as a passive activity and limiting children's opportunities (Santamaria, 2018). However, according to Kambouri *et al.* (2021), strong partnerships between parents and practitioners are essential, as children's use of iPads often extends into their home environment. Together, policies and research suggest that while screen time and iPads can be important for educational use, they must be balanced to support children's development.

Overall, this literature review demonstrates that iPads and screen time in early childhood education can both have many benefits and developmental concerns. Research suggests that iPads can support a child's engagement, literacy, and numeracy skills and enhance their learning opportunities when being used with a purpose and adult guidance. However, there are still concerns regarding the impact poor-quality screen time can have on children's speech and language development,

behaviour, and how they control their emotions, and research consistently highlights that the impact of iPads hugely depends on the quality and purpose of their use rather than the technology itself. Furthermore, policies and professional guidance emphasise the importance of balancing play-based learning experiences alongside technology in early years settings. Although existing research explores both the positive and negative effects of screen time on children's development, there are still debates on how technology can be used effectively within early years settings without affecting children's communication, behaviour or social interaction.

Therefore, further research is needed to explore how practitioners can integrate technology appropriately within early childhood education whilst supporting children's developmental wellbeing (UK Government, 2026).

Methodological considerations

These methodological considerations will outline and justify the research methods used to explore the effect that iPads and screen time have on early childhood education. The purpose of this section is to ensure that the chosen research methods are appropriate and reliable for answering the research aim and focus on how primary research will be used to explore current views and experiences within early years practice.

This research will use a mixed methods approach using a questionnaire to collect both quantitative and qualitative data from early years practitioners and parents. The mixed methods approach was considered most appropriate, as it allows the research to gather statistical information alongside opinions and experiences with the use of screen time in early childhood (Creswell, 2024). By collecting both forms of data, the research can develop a deeper understanding of how technology is used within education and home environments (Creswell, 2024). It will also discuss the sample, sampling method, limitations to the chosen research methods and the importance of triangulation.

Mixed methods research combines numerical data alongside personal experiences and opinions (Timans, Wouters and Heilbron, 2019). This method was chosen, as it was considered most useful and appropriate for this research because the use of iPads and screen time in early education involves both behavioural patterns and attitude towards technology. The quantitative data collected through closed

questions can help identify any patterns, such as how often iPads are being used at home or in a setting, whereas qualitative data collected through open-ended questions will allow participants to explain their experiences and views in a more detailed response (Schoonenboom, 2023). Research suggests that combining both forms of data strengthens the credibility of findings by allowing different types of evidence to support one another (Creswell and Hirose, 2019).

Questionnaires were chosen for this research because they provide a practical and time-efficient way of collecting a range of views and experiences. There is an option to answer anonymously, which may encourage more truthful opinions on children's use of technology, and questionnaires can also include closed and open-ended questions, which fits the mixed methods approach. The closed questions will focus on how often iPads are used and the amount of screen time children experience, allowing statistical data to be compared and analysed (Yaddanapudi, 2019).

Whereas the open-ended questions will allow the participants to discuss their opinion on the positive and negative effects of technology within early childhood education, which provides detailed experiences and opinions (Yaddanapudi, 2019).

The sample for this research will be early years practitioners and parents of young children within early childhood education. There will be around 15-20 participants taking part with a varied age range, and they will be selected from local early years settings or primary schools and any personal or professional contacts. This sample was considered appropriate because both parents and practitioners influence children's exposure to iPads and screen time within educational and home environments, and it allows the correct data to be collected in a short timeframe. Gathering information from both groups allows the research to explore different experiences and views towards technology in early childhood education, and selecting participants through local settings or professional contacts may increase response rates.

Small-scale samples can be used within educational research, as they allow the researcher to gather the correct amount of detailed data with limited resources and time (Ames, Glenton and Lewin, 2019). This research will use convenience sampling to choose the participants, which involves selecting participants who are easily accessible to the researcher and is commonly used in small-scale educational

studies because it is practical and efficient (Etikan and Bala, 2017). However, although convenience sampling was practical for a small-scale study, it reduces the study's generalisability and may limit the findings.

A further limitation is that convenience sampling may not reflect the views and experiences of all parents and practitioners involved in early childhood education. Research suggests that convenience sampling may increase the chance of bias because participants may share similar experiences or have the same background (Jager, Putnick and Bornstein, 2017). Nevertheless, convenience sampling was considered the most realistic and achievable approach for a small-scale study. A mixed methods questionnaire was considered the most suitable approach because it allows both statistical data and personal experiences to be explored. Research suggests that by using mixed methods, it can provide an in-depth understanding of any issues within education, as it has both statistical evidence and a descriptive viewpoint (Schoonenboom and Johnson, 2017).

Questionnaires were also chosen for this research because they are time efficient and easy to access for both the parents and practitioners, which may encourage participation. In addition to this, there is an option to answer the questionnaire anonymously, which may encourage the participants to answer honestly when discussing sensitive topics such as children's behaviour and development and how much they use the iPad. Compared to interviews and observation, questionnaires were considered more suitable for a small-scale study with limited time available. Although interviews may have provided more detailed responses and the ability to clarify, they can be very time consuming, there may be biased responses, and it can be intimidating for the participants. Similarly, through an observation method, it would have been time consuming as it would have been carried out over a period, and it can produce different behaviours, which results in only seeing what is expected. Therefore, questionnaires were considered the most fitting, as they balance the practicality, reliability and depth of information needed within this research.

Despite questionnaires and mixed methods having many advantages for this research, there are also many limitations which may affect the reliability and validity of the results. One limitation is that the questionnaire only involves a small group of

early years parents and practitioners, which means that the findings may not reflect the same opinions and experiences as all the other individuals involved in early childhood education. This suggests that small-scale studies along with convenience sampling can have very limited results (Jager, Putnick and Bornstein, 2017). Another limitation may be the participants answering the questions with what they think is socially acceptable, rather than being truthful, especially when discussing how often their child spends in front of a screen and different parenting practices. This may affect the accuracy of the final data collected.

Another limitation involves biased opinions and answers, as participants may hold strong positive or negative views towards iPads and screen time, which could influence how they answer the questionnaire. However, the halo effect may take place if participants base their responses on certain negative or positive experiences they have had (Batres and Shiramizu, 2022). The Hawthorne effect may also take place during the questionnaire, as the participants may change how they answer the questions because they will be aware they are taking part in research and may want to present themselves in a more positive way (Goodwin *et al.*, 2017). These limitations highlight that although a questionnaire can be very useful to provide information and opinions, the results may be influenced by personal opinions, behaviour and individuals' own personal experiences.

During this research project, triangulation will be used to improve the internal validity of the findings from the questionnaire, and it involves using multiple forms of data and perspectives to increase the accuracy and credibility of findings (Bans-Akutey and Tiimub, 2021). It will use both qualitative and quantitative data, which will be collected through the questionnaire. Closed questions will provide statistics regarding the use of screen time, whilst open-ended questions will provide more detailed explanations of experiences and opinions. Combining both forms of data allows the researcher to notice and compare any patterns or views, which will help to strengthen the information for the study.

The use of triangulation was considered important for this study because the topic of iPad use and screen time in early childhood education is widely debated. By relying mainly on the numerical data, it may not fully explain the parents and practitioners' opinions towards technology, but relying mainly on the qualitative responses may

make it hard to identify any patterns. By combining both methods within this study, it can provide a broader understanding of how iPads and screen time are viewed within early years settings and home environments. Using triangulation may improve the validity of the findings by reducing the limitations associated with relying on one research method (Natow, 2020).

In conclusion, the research methods selected for this study were considered appropriate for exploring screen time and iPad use, and the mixed methods approach using a questionnaire was chosen to gather both qualitative and quantitative data, allowing for a deeper understanding regarding children's use of technology. Although there are limitations, the use of triangulation helps to improve the validity and reliability of the research. Overall, the chosen methodology provides an effective way of investigating how technology may influence children's learning, behaviour and development within early years and home environments.

Ethical considerations

Ethical considerations are essential within educational research because they ensure participants are protected from harm, treated fairly and respected throughout the study (Suri, 2020). As this study involves collecting information from parents and practitioners about the effects of iPads and screen time within early years education, it is important that the study is conducted responsibly and in line with ethical guidance.

According to the British Educational Research Association (2024), researchers have a responsibility to protect participants' rights, dignity, privacy and wellbeing during the research process, and guidelines also emphasise the importance of consent, confidentiality, and safeguarding, especially when research relates to educational settings (BERA, 2024). This is particularly important within early childhood research, as the study may involve sensitive discussions surrounding children's behaviour, parenting practice, communication, and screen time habits. However, this research will follow the guidelines of the General Data Protection Regulation and the Data Protection Act 2018, ensuring that all personal data is collected, stored and used appropriately (UK Government, 2018a; UK Government, 2018b).

Before completing the questionnaire, participants will need to provide voluntary informed consent forms stating that they are happy to take part. Informed consent is

considered a key principle within educational research, as it ensures that the participants fully understand the purpose of the study before agreeing to take part (BERA, 2024). The participants will receive an information sheet explaining the purpose of the research, along with details about what their participation means, how the information from the questionnaire will be used within the study and how long it will take to complete. Participants will also be informed that participation is voluntary, and they have the right to withdraw from the research at any given moment or decline to answer any question if they wish. In line with the GDPR and the Data Protection Act 2018, participants will also have the right to request to see the information they have provided, request corrections to inaccurate data and withdraw their data from the study before the analysis process.

The researcher will also ensure that participants understand how their information from the questionnaire will be collected, stored and used, while ensuring transparency throughout the study (BERA, 2024). Furthermore, the questions within the questionnaire will be written clearly and respectfully to avoid causing any distress, as participants may discuss sensitive topics relating to children's behaviour and development, parenting practices or screen time habits, which may make individuals feel uncomfortable or misjudged (Creswell and Creswell, 2017).

Openness and honesty are important ethical considerations within educational research, as participants have the right to fully understand the purpose of the study and how the information they provided will be used throughout the research (Verschuren, 2016). In addition, confidentiality and anonymity will be maintained to protect the privacy of all participants involved. Maintaining confidentiality is an important ethical consideration, as it allows participants to confidently answer the questions honestly and be reassured that the information they provide will not be shared in any way that could relate back to them (Leon, Aizpurua and Van der Valk, 2021). Because of this, the questionnaire will not ask questions such as name, address or the name of the school or early years setting their child attends.

The information collected will be stored on a secure device that is password-protected, which will only be accessible to the researcher, and the answers provided will strictly only be used within the research study. When providing quotations from the open-ended questions, fake names or participant codes will be used in place of

real names to maintain anonymity and further protect the individual's identity (Issa *et al.*, 2020). Maintaining confidentiality and anonymity also builds trust between the researcher and participant and ensures that ethical standards are being upheld throughout the research process.

Although this research is low risk, there are still some potential risks that must be considered and reduced throughout the study. One potential risk involves participants, as the questionnaire focuses on the use of iPads and screen time, individuals may find it uncomfortable to discuss parenting practices, children's behaviour, their communication skills or emotional development. They may also worry that the responses they provide could be judged negatively, which may cause emotional discomfort, distress or harm, which emphasises that the researchers have a responsibility to protect the participants from this (BERA, 2024; Hurtaud *et al.*, 2025). However, to reduce these potential risks, the study will be completely voluntary, their identity will remain anonymous, the participants have the right to withdraw at any moment, they may choose to skip a question they do not want to answer, and all questions will be written respectfully to avoid causing distress. This suggests that by ensuring anonymity and voluntary participation, it can help participants feel more comfortable when discussing sensitive issues (Nosenzo and Tufano, 2017).

There are also potential risks to the researcher throughout the study, with one being researcher bias, as personal opinions or previous experiences may influence how the questionnaire is designed, understood and analysed. This suggests that bias within educational research can affect the reliability or the validity of the findings, as researchers may unintentionally influence the findings (Akbulut, 2025). To reduce this risk, the questionnaire will include neutral questions that avoid leading participants to answer in a particular way, and the researcher will remain professional when collecting and analysing data. Another potential risk involves dealing with sensitive information regarding children's behaviour, development and parenting practice, which can put a lot of emotional pressure on the researcher when reviewing the responses from the questionnaire. To minimise this risk, all information will be confidential and in line with ethical guidelines and university procedures, and the data will be stored on a secure device to protect the participants and the researcher (Dempsey *et al.*, 2016). Maintaining regular communication with a

supporting professional will also help to ensure that ethical issues or concerns are managed appropriately and correctly.

Potential risks to the university that must also be considered throughout the research, as educational settings have a responsibility to ensure that all research is to be conducted professionally and within line with ethical standards (UWTSD, 2022a). If confidentiality procedures are not followed correctly, it could result in a breach of participants' privacy, which could negatively affect the reputation of the university. This emphasises that researchers must ensure that the study is carried out correctly and responsibly and in line with the ethical standards and legal requirements (BERA, 2024). Therefore, this study will follow the guidelines and principles of the GDPR and the Data Protection Act 2018 to ensure that all the information from the questionnaire is in line with legal and ethical requirements (UK Government, 2018a; UK Government, 2018b). Ethical approval will also be secured before the study begins to ensure that it meets the correct ethical standards, which reduces the risk of data misuse, breach in confidentiality or unethical research practice which may cause harm to the university's reputation.

Secure data protection and storage are important ethical responsibilities within educational research, especially when collecting information from parents and practitioners about children's behaviour and development and screen time habits (Gupta *et al.*, 2022). All questionnaire responses will remain confidential, used for the research aim only, and stored securely for the timeframe required by university policy before being permanently deleted (UWTSD, 2022b). Research suggests that strong data protection procedures are important to maintain trust between the participants while ensuring the research remains in line with ethical standards, helping protect privacy and reduce the risk of breaches (Information Commissioner's Office, 2023).

Although this research does not directly involve children as the participants, the study concentrates on their experiences and development within early childhood education, meaning that sensitivity must remain throughout. This involves the researcher carefully considering children's wellbeing and protection, as it is based around their behaviour, social interaction and screen time usage (Flewitt and Ang, 2020). The study will ensure children are being presented fairly and avoid language

that may stereotype or label them in a negative way. However, if any safeguarding concerns relating to children's wellbeing come up during the study, appropriate safeguarding procedures will be followed in line with the university guidance (UWTSD, 2024).

The use of questionnaires was also considered from an ethical perspective during this study, to ensure that it was appropriate for participants and met the aim of the study. Questionnaires were considered suitable, as they allow participants to complete them within their own time and environment, which may reduce the pressure linked with face-to-face interviews. Furthermore, questionnaires were considered less intrusive than an observation, as it does not involve directly observing children, helping to minimise any interruption to their daily routine and protect their privacy (Patten, 2016).

Overall, maintaining ethical practice throughout the study is essential to protect participants and ensure the research is held responsibly and professionally (Suri, 2020). Throughout the research, there will be a large consideration for confidentiality and anonymity, openness and honesty, data protection and ensuring there are no potential risks. To ensure this, researchers will follow guidance from BERA, GDPR and the Data Protection Act 2018 to ensure that the participants and the information they provide are protected throughout. This will help support participants' wellbeing, encourage honest responses and ensure the integrity of the research.

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