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Education Committee inquiry:

Screen Time: Impacts on education and wellbeing

Written evidence submitted by Dr Gemma Taylor (University of Salford), Dr Joanna Kolak (University College, London), Prof. Padraic Monaghan (Lancaster University), Dr Amy Bidgood (Liverpool John Moores University), Dr Adam Galpin (University of Salford)

We are a group of researchers investigating child development and digital media use. The majority of this written evidence comes from an ESRC funded project “Investigating the educational potential of touchscreen apps for children’s early vocabulary acquisition” (May 2018-August 2021)” awarded to Dr Gemma Taylor and Prof. Padraic Monaghan. Evidence from additional research we have conducted is also presented.

To contact us about this submission, please contact project leader Dr Gemma Taylor [g.taylor4@salford.ac.uk](mailto:g.taylor4@salford.ac.uk)

## Response

### Executive summary

- Moving beyond a focus on screen time is critical; the device type, content and context of children's digital media use are also important factors to consider.
- Families need clear guidance on how to select high-quality media and mitigate any risks with children's digital media use using a balanced approach to digital media use.
- Policy needs to be implemented to ensure digital media content labelled as educational is labelled as such based on the principle derived from research.
- There's a need for investment into better quality research around the influence of media on children and families, including longitudinal studies with large participant samples.

### **What is the current understanding of how screen time can support and impact children's development and educational outcomes, including the effect on concentration and behaviour?**

1. We should move beyond thinking about media use purely in terms of "screen time", children's ability to learn from digital media is also determined by the type of digital media being used, the content of the digital media being consumed, the social context of digital media use and the wider family and societal contexts ([Bidgood et al., 2022](#); [Galpin & Taylor, 2018](#); [Galpin et al., 2023](#)). Importantly funding for high quality longitudinal studies is essential to support our understanding of the impacts of children's digital media exposure.
2. The content of digital media is important, in our research we have found that the top pre-schoolers' apps that could be classified as educational with the presence of a learning goal may support language development by using less frequent words to those heard in children's everyday language exposure ([Kolak et al., 2023](#)). However, educational apps include a low proportion of complex sentences and questions, constructions conducive to language development.
3. In our recent meta-analysis of 17 studies and 100 effect sizes we found that co-using digital media with an adult (either a caregiver or an experimenter) can support 0-6 year old children's learning ([Taylor et al., 2023](#)). Co-using digital media with an adult can support children's learning by increasing attention to the learning material and tailoring and explaining the content to the child's educational level. The social context of children's digital media use is therefore an important factor to consider.

### **What is the current understanding of how screen time can support or impact children's wellbeing and mental health, including the use of social media?**

4. Much of the evidence base on the impact of screen time on children's wellbeing is undermined by methodological weaknesses (Galpin & Taylor, 2018).
5. Our recent review of research on the impact of social media on adolescent well-being for youth charity *Plan International UK* (Galpin, 2023) found that studies generally demonstrate small effects which are affected by demographic variables and can vary from adolescent to adolescent.
6. Like other scholars, we concluded that studies should employ longitudinal designs that follow the relationships between children's media use and wellbeing over time. They should allow a more granular approach to understand whose wellbeing is vulnerable following screen use and in what circumstances. This requires moving beyond a narrow focus on screen "time" (Galpin, 2023).

**How can schools and parents be better supported to manage children's screen usage, for example, through age-related guidance? Could the Department for Education be doing more in this area?**

7. Parents do need support through age-related guidance that recognises the benefits, risks and how to mitigate against the potential risks of children's digital media use.
8. We investigated the quality of apps recommended for pre-school age children by leading media rating websites Common Sense Media and the Good App guide. While the websites were good at differentiating apps with a learning goal and providing feedback to support learning, there is room for improvement both in the available website rating systems (including the need for more transparency regarding the rating criteria) and also with respect to app design and development ([Taylor et al., 2022a](#)).
9. Selecting high quality digital media is a challenge for parents and schools. In our research on children's educational apps, website rating systems and app store ratings did not ensure that the digital content could be educational for pre-school age children ([Taylor et al., 2022a](#); [Taylor et al., 2022b](#)). Specifically, while apps with a learning goal have more features that promote children's learning, apps could do better with respect to adjusting content to children's needs, using high quality feedback that is specific and meaningful and promoting social interactions. Importantly, these features are not assessed by website rating systems.
10. We suggest that a policy for app ratings and labels in the app stores and on website rating systems should be put in place as a quality assurance mark to indicate the educational quality of apps to support schools and families in their choices for app content for children. In our work, we have proposed an easy-to-use app rating system for parents and teachers of pre-school age children that includes 10 criteria to assess the educational potential of an app ([Kolak et al., 2021](#)). Importantly, we assessed the validity of our app evaluation tool with parents, early years professionals and app designers.
11. In our survey study conducted during the first COVID-19 lockdown, parents reported using digital media to manage childcare when needing to work from

home and dealing with other demands on their time. The research demonstrated the importance of access to affordable resources for leisure activities so that families have alternatives to screens for their entertainment. Importantly, some parents reported feeling guilty about their children's media use as well as their own digital media use and raised concerns for their child's development. At the same time parents recognised the benefits of digital media for home schooling and maintaining social connections with friends and family ([Galpin et al., 2023](#)). Parents were therefore lacking a clear message about managing their family's digital media use and it is essential that any guidance is sympathetic to family resources and needs. We therefore recommend education for families on how to mitigate the risks associated with screen use.

12. In our commentary, we emphasise that teaching children healthy habits around digital media use is key. Just as the type and content of digital media use is important to consider, balancing digital media use with other activities including social interaction, physical activities and time spent outdoors is essential. We also recommend that digital media use does not interfere with children's routines such as sleep and mealtimes or naturally more active times of day ([Bidgood et al., 2022](#)).
13. Limited access to alternative resources and activities due to financial and societal constraints (e.g., the COVID-19 lockdowns) can increase children's digital media exposure ([Galpin et al., 2023](#)). Thus, understanding and addressing the family and societal contexts around children's media exposure is essential. We found that there were no negative associations between 0–3-year-old children's digital media exposure and their language development in our sample of highly educated families. Instead, children's language development was related to reading storybooks with their parents ([Taylor et al., 2018](#)). Thus, emphasising the role of other developmentally appropriate activities outside of digital media is helpful as a protective factor.
14. The Department for Education should commission work to involve families and schools in the co-production of packages of support for healthy digital media use. This will help to ensure that the needs of all stakeholders are well understood in any guidance.

### **How is screen use as an academic tool being managed in schools, for example, in lessons or for homework?**

15. We have conducted some preliminary descriptive analyses on a recent survey study that we conducted with primary school teachers across the UK around their use of apps to support their teaching (Taylor et al., Manuscript in preparation). Overall, most of the teachers in our sample used apps to support their teaching (N = 118/124) and app use was encouraged both during the school day and for homework (see Figure 1).

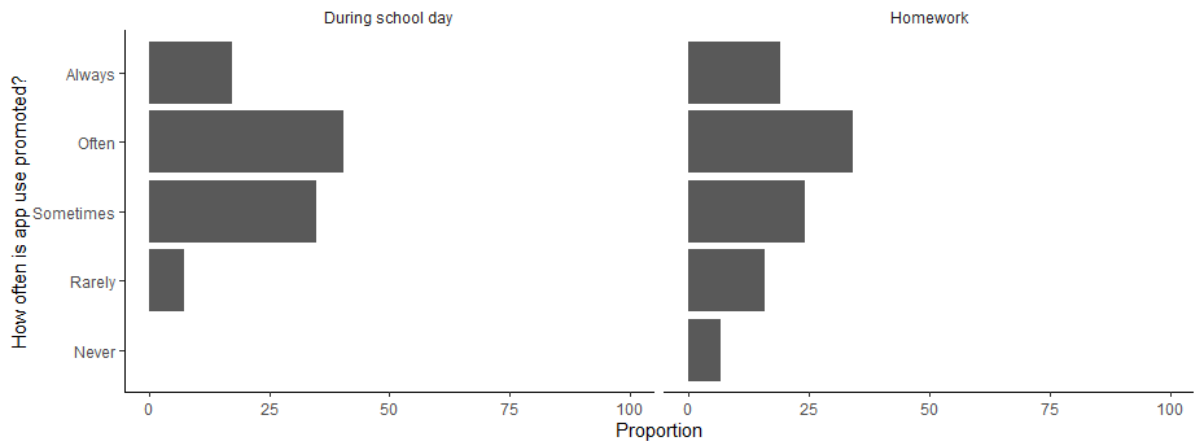


Figure 1. The frequency that app use is encouraged during the school day and for homework expressed as a proportion of participants who answered this question.

Apps are being encouraged in primary schools for a variety of reasons with a vast majority using apps to allow children to practise or consolidate new skills (see Figure 2).

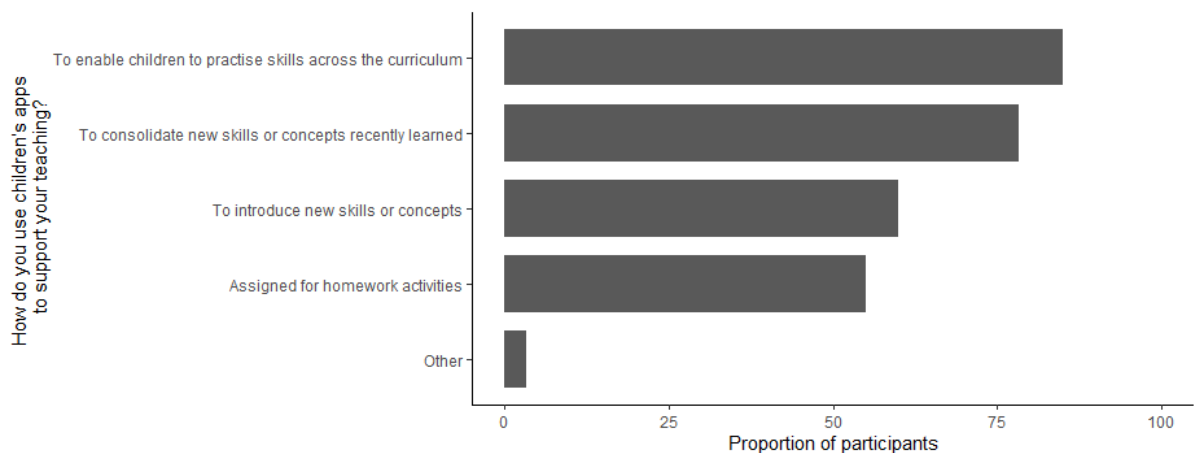


Figure 2. Reasons for using apps to support teaching expressed as a proportion of participants who answered this question.

Furthermore, schools primarily rely on word of mouth and website recommendations and ratings for selecting apps to use in the classroom (see Figure 3). Therefore, ensuring website rating systems are standardised and research informed is critical to ensure that only high quality educational apps are used in schools and recommended for use outside of the school day.

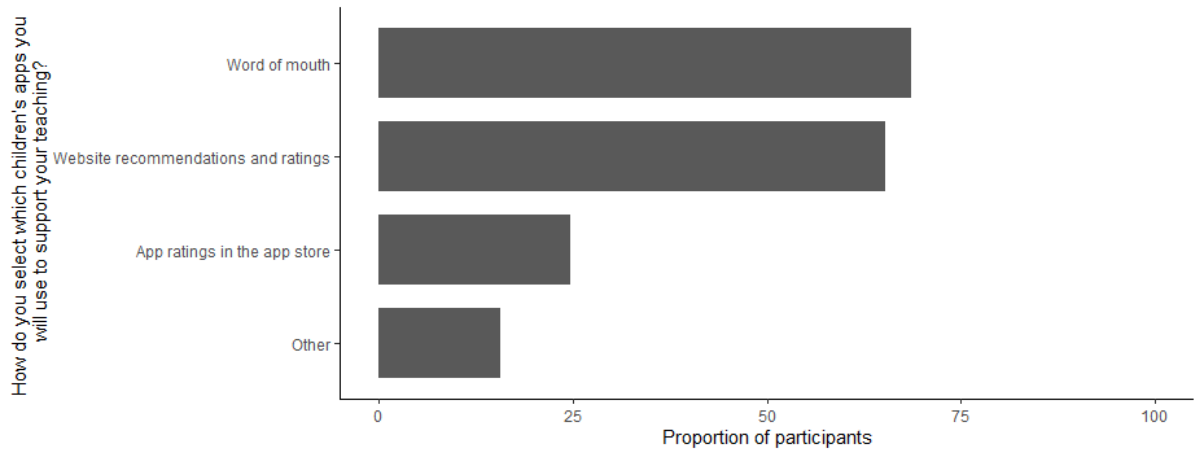


Figure 3. How teachers select apps to support their teaching expressed as a proportion of participants who answered this question.

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