



Digital devices for learning

Final Report

May 2026

Topics: Education and Skills, Health and Wellbeing

Introduction

The integration of digital devices in education has transformed learning experiences, offering new opportunities for engagement and accessibility. However, it also raises important considerations around equity, safety, and effective implementation. This report explores these issues within the context of Fife's 1:1 device deployment strategy.¹

The aim of this report is to examine the impact, challenges, and best practices associated with digital device use in education, focusing on children's rights, wellbeing, and educational outcomes.

This report will evaluate and summarise existing evidence to inform an evolving understanding of how digital devices are used for learning by children and young people, with a focus on both opportunities and risks.

To achieve this aim, the report addresses the following research questions, which can be explored individually or collectively to provide a comprehensive and in-depth understanding of the implementation, impact, and development of the 1:1 device deployment:

- 1. What are the opportunities and potential risks associated with the use of digital devices in learning among children and young people?**
- 2. How have local initiatives, consultation and learning, professional development and foundational frameworks around children's rights and wellbeing shaped educational practice and policy for the 1:1 device deployment?**
- 3. How are children, staff, and families supported in the responsible use of digital devices for learning, and what safeguards and practices are in place to ensure safe and effective implementation across school and home settings?**
- 4. How is the use of digital devices for learning evaluated and communicated in Fife, and what impact do these practices have on learner engagement, staff feedback, and parental involvement?**

¹ Fife Council. (2025).

Demand

The demand for digital devices in schools has grown significantly, driven by remote learning experiences as demonstrated during Covid-19 lockdown, curriculum requirements, and to close the digital divide, addressing inequalities in access to digital devices and connectivity. The Scottish Government has committed to improving digital access for learners, recognising that equitable provision of devices is essential for closing attainment gaps, supporting blended learning, and upholding children's rights.

The Digital Learning and Teaching Strategy for Scotland outlines four key objectives to raise attainment, ambition and opportunities for all.²

- Develop the skills and confidence of educators in the appropriate and effective use of digital technology to support learning and teaching
- Improve access to digital technology for all learners
- Ensure that digital technology is a central consideration in all areas of curriculum and assessment delivery
- Empower leaders of change to drive innovation and investment in digital technology for learning and teaching.

Under outcome 7 of the National Improvement Framework 2025, a new digital strategy for school education has been developed in partnership with COSLA and education stakeholders, highlighting the vision to create a digitally skilled workforce and ensure equitable access to technology for all learners. The strategy focuses on improving digital infrastructure and connectivity, providing devices and digital services, and embedding purposeful use of technology across teaching and learning.³

A key concept underlying the overarching policies and frameworks is equity and inclusion, closing the unequal access to devices ensuring every learner benefits from modern digital tools and resources, regardless of socio-economic background or location. Not having equal access to technology is making existing gaps in life chances even bigger.⁴

Barriers identified to digital inclusion generally included the high cost of devices and data packages, particularly for low-income households, and the skill deficit for children and parents navigating online safety risks and technology advancements.⁵ The unequal access is also demonstrated for care experienced children who face digital exclusion and reduced digital education than their peers.⁶

The widening gap in outcomes such as attainment and child poverty, between the most and least deprived communities in Fife, are persisting, including connectivity.⁷ Device access previously was dependent on school budgets and parental resources, with children and young people sharing devices in school, and a proportion of pupils having limited access at home. These inconsistencies contributed to unequal learning experiences.

The minimum digital living standard interim report highlighted underscoring in Scotland relating to households with children included access to adequate large screen devices

² Scottish Government. (2016).

³ Scottish Government. (2025).

⁴ Digital Poverty Alliance. (2022).

⁵ Scottish Government. (2025).

⁶ Laurenson, J. (2023).

⁷ Fife Council. (2024).

(laptops or tablets), with accessible internet, essential digital skills and access to support/resources that address functional, and safety related digital competencies identified generally.⁸

Digital literacy, the ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital technologies, is embedded across the curriculum of excellence areas. Programmes such as the Digital School Awards Scotland encourage the integration of digital technology to improve learning outcomes and prepare pupils for a digital future.⁹ By using digital devices in education, learners gain practical skills that will serve them well in their future careers and daily lives.

Providing accessible tools and resources and removing barriers to learning is also essential to support children and young people with additional support needs (ASN). Accessibility features enable learners to personalise their device, strengthening universal support within classrooms. Figure 1 details the increase in pupils recorded with ASN within Fife, and at a national level.

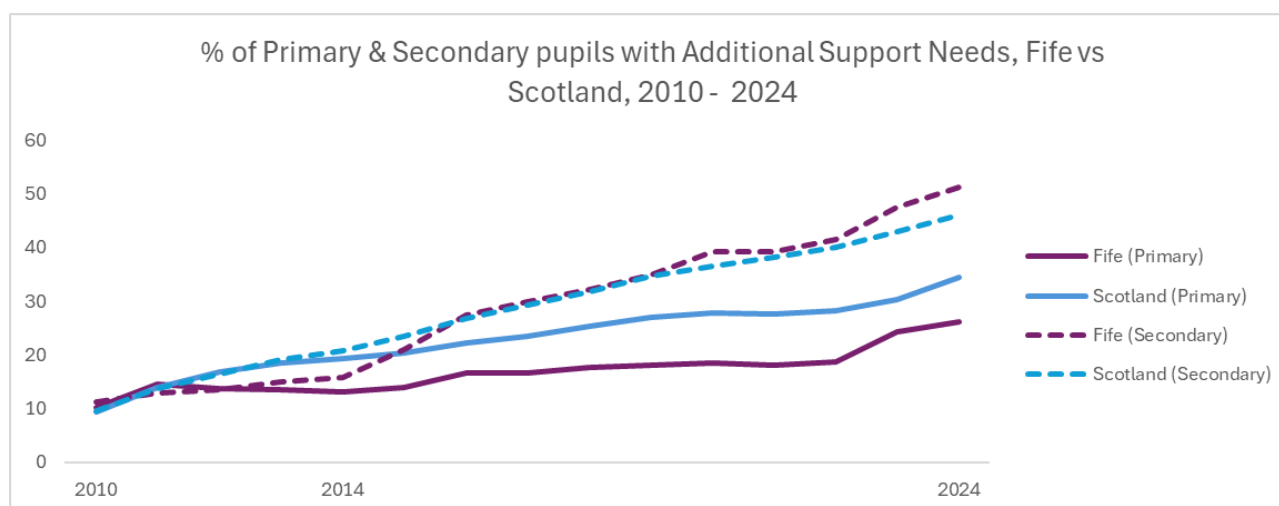


Figure 1 – Percentage of Primary and Secondary Pupils with ASN, 2010 - 2024¹⁰

Since 2014, ASN prevalence has risen sharply. In primary schools, Fife increased from 13.1% in 2014 to 26.2% in 2024, while Scotland rose from 19.3% to 34.6%. In secondary, Fife increased from 15.8% to 51.1%, overtaking Scotland (20.8% to 46.1%).

Fife stands out for higher rates of dyslexia and interrupted learning in secondary schools. Fife's secondary schools leading ASN need is dyslexia (25%), higher than Scotland's 18%. Interrupted learning is significantly higher in Fife (23% vs 7%) compared to Scotland. Scotland reports more pupils needing language support and help with family issues. Autism and social, emotional and behavioural difficulties have risen steadily across both areas. Mental health and interrupted learning have increased in Fife's secondary sector.

This report does not focus on ASN and is being completed in parallel to a rapid review of evidence-based supports and professional learning, examining available evidence as to how local authorities across Scotland, wider UK, and comparable international education systems, are supporting increased ASN demand. For further information on this work please contact research.enquiries@fife.gov.uk.

⁸ Scottish Government. (2025).

⁹ Education Scotland. (nd).

¹⁰ Scottish Government. (nd).

Digital technology can support improvements in educational attainment, compared to traditional learning methods, when used effectively.¹¹ Research, including analysis by the Education Endowment Foundation (EEF), suggests that access to technology for learning can benefit disadvantaged learners, more so than least-disadvantaged learners.¹² However, digital devices are not a substitute for traditional teaching methods and high-quality teaching. Evidence consistently shows that technology alone is unlikely to improve outcomes; rather, its effectiveness depends on how it is integrated into teaching and learning, with the most positive impact when they are part of a comprehensive learning approach that includes teacher training, effective pedagogy, and curriculum integration.¹³

¹¹ Yang, H. L., and Xiang, J. J. (2024).

¹² Haßler, B., Huntington, B., Klune, C., Lester, J., Bhutoria, A., & Mansour, H. (2025).

¹³ Lewin, C., Smith, A., Morris, S. and Craig, E. (2019).

Opportunities and Risks

1. What are the opportunities and potential risks associated with the use of digital devices in learning among children and young people?

Evidence indicates that the impact of digital devices in education is variable and highly dependent on implementation, pedagogy, and context. Within a 1:1 device model, the potential benefits are maximised where device use is purposeful, supported by teacher practice, and aligned to curriculum. Risks primarily arise where use is unstructured, excessive, or displaces other developmental activities.

Opportunities

Engagement and Motivation

Adaptative game-based learning applications are considered a valuable learning resource, with studies indicating this has improved engagement, motivation and confidence, particularly in maths^{14 15} and science.^{16 17} The varied multimedia content and digital tools hold pupils' attention, increasing motivation and engagement.¹⁸ UK evaluations provide that personalised feedback and progressions, and dynamic difficulty adjustment are key for sustaining engagement.

Interactive educational content that encourages problem-solving and critical thinking can play a key role in supporting cognitive development. This can be compared to passive consumption of content, for example prolonged watching of videos or content that is overly stimulating, for example certain applications, which may not support, or even detract from cognitive development.¹⁹

Personalised and Inclusive Learning

Digital devices enable and support personalised and inclusive learning by adjusting content based on learners' strengths and knowledge gaps, providing real time instant feedback/correction, and facilitating learners to complete tasks at their own pace. Devices can also enhance communication between teachers and pupils, allowing for timely feedback, personalised guidance, and monitoring of individual progress, leading to more effective teaching methodologies.

Assistive technologies (AT) such as screen readers, speech-to-text, colour overlays, visual schedules and adaptive hardware make the classroom a more inclusive environment. These are essential for eliminating barriers and promoting autonomy for students with special educational needs and neurodiverse learners. Students can learn at their own pace, which

¹⁴ Bang, H.J. and Flynn, L.K. (2022).

¹⁵ ImpactEd. (2025).

¹⁶ Chen, C.H. Liu, G.Z. and Hwang, G.J. (2015).

¹⁷ Li, M, Ma, S and Shi, Y. (2023).

¹⁸ Scottish Government. (2016).

¹⁹ Clemente-Suárez, V.J, Beltrán-Velasco, A.I, Herrero-Roldán S, Rodriguez-Besteiro S, Martínez-Guardado I, Martín-Rodríguez A. and Tornero-Aguilera J.F. (2024).

supports those who need extra time or advanced challenges. AT associated with the device also supporting learning from environments outside of the classroom.

Printed books have an increased positive impact in early years development and for comprehension and information retention. Providing reading materials in different formats, for example e-reader, can encourage and enable children to read, with an accessible range of material.²⁰ A variety of educational applications and digital platforms provides alternative ways to demonstrate learning.

Supporting Teaching Approaches

Digital devices can support teaching by improving the quality of explanation and modelling, increasing opportunities for practice, and enabling more timely and precise assessment and feedback. These benefits are dependent on teacher capability, training, and integration with curriculum planning.

Scottish policy frames digital devices and platforms as tools to support effective pedagogical practice, rather than drivers of change, emphasising their role in adaptive teaching, assessment and feedback, inclusion, and extended learning, in line with Curriculum for Excellence and national priorities on attainment and equity.^{21 22}

Digital tools can also support planning, assessment, and the monitoring of pupil progress, including tracking engagement and informing evidence-based decision-making.²³ Shared access to platforms and resources can improve consistency across schools, supporting more efficient management, procurement, and professional learning.

In addition, digital platforms can facilitate access to a wide range of learning resources and professional collaboration, enabling teachers to share practice, access materials, and engage with subject-specific expertise.

Skills, Behaviour and Digital Citizenship

The use of digital devices prepares learners for a tech-driven world, including building future ready digital skills, fostering creativity and collaboration.^{24 25} Children and young people can build digital skills by learning to navigate devices, apps and online environments. Online safety and data privacy are consistently considered, alongside accessing collaborative platforms, further developing core digital literacy skills.

Digital devices further support the development of self-regulation and management in relation to managing screen time, deadlines and online distractions. This can be reinforced by the functionality of the device itself in terms of use of reminders, focus mode and specific applications. Independent learning and adaptability are encouraged with increased access to learning material, adapting to new technology and troubleshooting technical issue.

Digital citizenship is a critical component of safe and effective digital device use in education. It encompasses teaching learners' responsible online behaviours, including privacy, security, and respectful communication. It also promotes awareness of ethical issues such

²⁰ Picton, I., Cole, A. and Clark, C. (2023).

²¹ Scottish Government. (2016).

²² Education Scotland. (2022).

²³ Education Scotland. (2022).

²⁴ UNESCO. (2023).

²⁵ Haleem, A., Javaid, M., Qadri, M.A. and Suman, R. (2022).

as plagiarism and intellectual property, ensuring students develop the skills to navigate digital environments responsibly and ethically.

Parental Engagement

Home access to learning materials such as lesson materials and guides, enables parents to support learning at home and provides another communication avenue.²⁶ Accessibility features, including translation tools, further support engagement for those whose first language is not English. This can also support digital literacy for parents including exposure to technology, guided learning opportunities and modelling safe digital behaviours.

Social and Communication

Digital devices facilitate collaboration both in and out of the classroom. Pupils can share work and ideas with peers and engage in interactive learning experiences which are meaningful to them. This also encourages peer support and social learning. Children and young people can use different formats to express themselves. This encourages pupils who do not feel as confident sharing ideas and learning within the classroom environment.

Continuity of Learning and Access

Digital device access can extend learning time, at school and at home, having a positive effect on attainment, particularly for secondary age learners.²⁷ This also evidences that digital devices can support pupil attendance, enabling children and young people to access learning material anywhere, ensuring continuity in education. In the event of school closures due to severe weather or when students are unable to attend in person because of illness or anxiety, remote learning provides an effective flexible solution reducing interrupted learning.

Potential Risks

Health and Wellbeing

Research has shown a link between the use of digital devices by children and an increased risk of eye strain and related conditions, referred to as digital eye strain (DES).²⁸ Although symptoms of DES are recorded in adults and children, there is evidence that increased digital use may lead to myopia progression or increase in short sightedness.²⁹ This is also influenced by device viewing distances.³⁰ Practising good postures when using digital devices is also important.

It must be noted that different digital device use, for example using a device to watch TV, social media and for gaming, sometimes referred to as 'sedentary leisure', has different associated risks compared to accessing educational applications and learning platforms that promote active learning.

²⁶ Nicolai, S., Rui, T.Y., Zubairi, A., Seluget, C. and Kamninga, T. (2023).

²⁷ Scottish Government. (2015).

²⁸ Kaur K, Gurnani B, Nayak S, Deori N, Kaur S, Jethani J, Singh D, Agarkar S, Hussaindeen J.R, Sukhija J. and Mishra D. (2022).

²⁹ Specsavers. (nd).

³⁰ Ichhpujani P, Singh R.B, Foulsham W, Thakur S. and Lamba A.S. (2019).

Device use prior to bedtime has been linked to poor sleep quality,³¹ with reduced sleep being linked to other wellbeing factors such as poor mental health. A meta-analysis conducted in children 10 years and younger found that increased screen time is linked to, anxiety, depression, aggression and hyperactivity however it was dependent on the amount and type of screen time. Moderate duration spent on educational content, with factors such as sleep, social interaction and physical activity not displaced, detailed a minimal risk of socioemotional problems.³²

Digital Distraction and Reduced Focus

Studies found that irresponsible use of devices like phones, tablets, and laptops distracts students and negatively impacts academic performance and participation. Task switching challenges can overload the brain's cognitive capacity, leading to reduction in attention and executive function.³³

There is significant evidence that mobile device use reduces attention and focus, however there is a difference between unregulated and unstructured device use, accessing non-academic content without restrictions such as instant messaging, and purposeful guided use of educational content. Access to devices for educational purposes may reduce the access to mobile phones within the classroom, improving focus and attention.

Learning and Cognitive

There is evidence regarding digital devices in education limiting learning and development related to reading comprehension. A study from Norway found that students who read text on computers performed worse on comprehension tests than students who read the same text on paper.³⁴ A meta-analysis showed that screen reading was consistently associated with lower reading comprehension scores, suggesting they gain greater understanding and meaning from printed materials.³⁵ Sweden returned to more traditional teaching of learning in 2024, with the ability to read and write, basic skills and arithmetic were best acquired through non digital experiences.³⁶ This highlights the importance of age and stage in terms of when digital devices in education are used.

Safety, Privacy, and Data Protection

Increased access to internet-enabled devices introduces risks relating to online safety, privacy, and data protection. Children and young people may be exposed to harmful content, and potential breaches of personal data, particularly where use extends beyond structured and supervised environments. The Scottish Government internet safety for children and young people action plan outlined the appropriate training, and information and support for professionals and families, including children and young people.³⁷

³¹ Gale, E.L., Williams, A.J. and Cecil, J.E. (2025).

³² Vasconcellos, R. P., Sanders, T., Lonsdale, C., Parker, P., Conigrave, J., Tang, S., del Pozo Cruz, B., Biddle, S. J. H., Taylor, R., Innes-Hughes, C., Salmela-Aro, K., Vasconcellos, D., Wilhite, K., Tremaine, E., Booker, B. and Noetel, M. (2025).

³³ Clemente-Suárez, V.J, Beltrán-Velasco, A.I, Herrero-Roldán S, Rodríguez-Besteiro S, Martínez-Guardado I, Martín-Rodríguez A. and Tornero-Aguilera J.F. (2024).

³⁴ Mangen, A., Walgermo, B.R. and Bronnick, K. (2013).

³⁵ Delgado, P., Vargas, C., Ackerman, R. and Salmerón, L. (2018).

³⁶ House of Commons Education Committee. (2024).

³⁷ Scottish Government. (2017).

Digital platforms used in education also involve the collection and processing of pupil data, raising considerations around consent, security, and transparency. Legislative developments, including the Data (Use and Access) Act 2025 and changes to UK GDPR, highlight the evolving nature of these risks, alongside ongoing concerns about maintaining strong safeguards such as those set out in the Age Appropriate Design Code (AADC).³⁸

Mitigation measures, including filtering and monitoring systems, digital literacy education, and clear safeguarding protocol, can reduce exposure to harm, but cannot eliminate risk entirely. Cybersecurity threats and the dynamic nature of online environments mean that risks continue to evolve. The school curriculum includes internet safety and cyber security courses.³⁹ Regular audits and clear contact information/escalation paths and support is required for blocking and reporting harmful content and reporting wellbeing concerns. Information and support must be accessible to professionals and families, including children and young people.

Effective management therefore requires a whole-system approach, combining institutional safeguards, professional oversight, parental involvement, and the development of learners' skills in safe and responsible digital use. Balancing protection with children and young people's rights to access information and participate in digital environments remains a key consideration.⁴⁰

Equity and Inclusion

Parents and carers can find it difficult to use educational apps that are commonly used for their child's education.⁴¹ Families with lower digital literacy may struggle to provide support including security/safety measures and troubleshooting issues, leading to unequal access to learning opportunities and stress/tension at home. Digital skills projects and adult learning programmes, focusing on the most marginalised groups of parents, may be required to provide support.⁴²

Displacement (Displacement Hypothesis)

Increased access to digital devices may displace other developmental activities out with the school environment such as reading, playing sport, playing an instrument, time spent in natural environments and face to face interaction. Reduction in other activities that support social and cognitive development is a potential risk, with this linking back to the appropriate duration of device access and ongoing monitoring of this within and out with education settings. UK and Scottish Government guidance details balanced and structured integration to limit this. Within the school environment devices should not replace practical learning and group/social skills.

³⁸ 5 Rights Foundation. (2025).

³⁹ NSPCC Learning. (2025).

⁴⁰ Anderson. S. (2025).

⁴¹ Audit Scotland. (2024).

⁴² Treanor, M. and Troncoso. P. (2023).

Summary of Opportunities and Risks

Although duration of digital use is important, content and context matters. The type of accessible content and duration of access requires careful management.^{43 44} The research in this area is diverse however there is a consensus that not all 'screen time' is equal, with the type of content having drastically different impacts on children's development and behaviour.

The Digital Mental Health Research Group⁴⁵ advises that a better way to understand and refer to digital use is 'digital diet'. Screen time is likened to food: like food, screen time's effects depend on the

1. type of screen time,
2. amount of screen time,
3. balance of different types of use and activities,
4. individuals' own biology and psychology,
5. strategic utility of the use (e.g., is it for boredom or work).

Like diet, the effects of screen time are to be determined holistically, taking both the use and the user into account.

Evidence indicates that risks are not driven solely by device access, but by the type, duration, and context of use. Structured, educational use presents fewer risks than unstructured or passive use, and negative impacts are more likely where device use displaces sleep, physical activity, or social interaction.

It is essential for educators, parents, and policymakers to identify and communicate guidelines and practices that maximize the positive benefits of digital devices, while mitigating against potential risks.⁴⁶

⁴³ Clemente-Suárez, V.J, Beltrán-Velasco, A.I, Herrero-Roldán S, Rodriguez-Besteiro S, Martínez-Guardado I, Martín-Rodríguez A. and Tornero-Aguilera J.F. (2024).

⁴⁴ Internetmatters.org (nd).

⁴⁵ Orben, A. (2023).

⁴⁶ Clemente-Suárez, V.J, Beltrán-Velasco, A.I, Herrero-Roldán S, Rodriguez-Besteiro S, Martínez-Guardado I, Martín-Rodríguez A. and Tornero-Aguilera J.F. (2024).

Practise and Policy Consultation

2. How have local initiatives, consultation and learning, professional development and foundational frameworks around children's rights and wellbeing shaped educational practice and policy for the 1:1 device deployment?

The development of Fife's 1:1 device deployment has been shaped by local initiatives, stakeholder consultation, and professional learning. This section explores how these influences, alongside children's rights and wellbeing frameworks, have informed practice and policy, supporting a more consistent, inclusive, and responsive approach to implementation.

Local Initiatives and Consultation

Following the Covid-19 pandemic, a series of local trials involving personal digital devices for learners were undertaken across Fife. Initial trials in 2021 included whole year groups in several secondary schools and selected primary classes, with subsequent expansion to full senior cohorts in Woodmill High School and St Columba's RC High School. In 2023, all learners at Woodmill and St Columba's high schools were provided a personal Chromebook that they could use in school and at home. These early initiatives provided practical insight into device use across school and home settings and highlighted the importance of staff confidence, consistent practice and access to digital platforms. Staff were consulted to evaluate how successful this had been in supporting learner access to digital platforms.

A wider consultation in September 2024 gathered views from over 1,000 learners, 140 staff (including school leaders), and 169 families. Findings identified perceived benefits, particularly around personalised learning, access to resources, and independent study, and concerns, including screen time, online safety, staff confidence, and potential over-reliance on technology. These insights directly informed the March 2025 Committee report⁴⁷ and shaped the development of guidance, safeguards, and support materials for schools.

"Help me learn in many different ways. when I write a lot, I get sore hands but a 1:1 device would help me not be able to get sore hands as easy and also let us be able to share things with our parents." Pupil response

"Personalised learning opportunities, greater access to educational resources, and the ability to develop digital literacy skills, both in school and at home. These devices also encourage independent study." Parent/Carer response

"The concept just seems in keeping with modern day living but with two children with additional needs and one being learning disabled, I feel that had this been in place for him from day one in his additional support setting, I actual believe he would have advanced much further than he has. He is non-verbal and it's only through the use of electronic devices at home, that we actually get an insight into his literacy abilities. Our daughter who is

⁴⁷ Fife Council. Cabinet Committee (2025).

supported in mainstream does already get access to a device within the classroom and I firmly believe this has developed her school significantly.” Parent/Carer response

“The development of richer, deeper investigations and ease of working collaboratively in IDL projects.” Staff response

“Not all pupils are happy and/or confident using IT as a learning tool. This could cause or add to their anxiety.” Staff response

“It would allow me to be more expansive with the tasks I set as homework and to be more interactive [with] the learners on an individual basis.” Staff response

These concerns were explored and appropriate safeguards identified through partner providers such as the Lightspeed content filtration and Jamf device management for restricting app deployments. Concerns around privacy, breakages, and parental controls were also explored.

“I don’t want them to listen to my conversations like my Alexa.” Pupil response

“How would risks of inappropriate use be managed. How would any device monitoring affect the privacy of home life.” Parent/carer response

Alongside formal consultation, ongoing engagement has been supported through conferences and professional dialogue. In June 2025, area-based conferences brought together school leaders and ambassadors to share the vision for Transforming Learning, learning from other local authorities,⁴⁸ exploring implementation challenges. Ambassadors engaged in sessions around digital skills and Showbie to empower their role for supporting staff. The conferences ended with round table discussions, with support provided for networking and promotion of the shared vision. Feedback highlighted enthusiasm for enhancing creativity, inclusion and feedback, alongside concerns regarding staff confidence, consistency of practice and the potential over-reliance on technology. These discussions further informed support needs, including professional learning and clear guidance for implementation.

Influence on Policy and Practice

Consultation and pilot activity have directly shaped the design of the 1:1 rollout in Fife. Key areas of influence include:

- **Pedagogy and practice:** Emphasis on consistent, high-quality use of devices, supported by clear teaching guidance
- **Professional learning:** Development of structured and responsive training, including targeted support where needed
- **Safeguarding and infrastructure:** Implementation of filtering, monitoring, and device management solutions to address safety concerns
- **Equity and access:** Recognition of the need to support families with varying levels of digital access and confidence
- **Wellbeing and balance:** Development of guidance on appropriate use, including screen time and digital balance.

⁴⁸ Scottish Borders, Glasgow and Falkirk.

Table 1 summarises how consultation informed policy and practice.

Table 1 – Consultation and influence on 1:1 device rollout

Consultation Activity	Audience	Key Feedback/Insight	Influence on 1:1 Device Rollout (Policy & Practice)
Collaboration / knowledge-sharing	Other local authorities	Identification of best practice	Inform a more effective and consistent approach to the 1:1-device rollout.
Practitioner engagement (pilot schools / rollout phases)	Teachers and school staff	Need for clarity on classroom management, pedagogy, and consistent expectations; variability in confidence using devices	Informed professional learning offer, development of teaching guidance, and more consistent whole-school approaches to device use During the local pilots it was determined that Lightspeed filtering was suitable for providing adequate content filtration to devices within
Surveys / sessions	Parents and carers	Concerns around screen time, online safety, and home use; variability in home access and confidence supporting learning.	Shaped guidance for home use, strengthened online safety approaches, and reinforced need for equity in access and support for families.
Learner engagement sessions	Children and young people	Value placed on device access for learning, creativity, and communication; concerns about overuse, distraction, and wellbeing	Informed balanced use policies, including appropriate use guidelines, staged access, and integration of wellbeing considerations (e.g. screen breaks, digital balance).

Professional Development Shaping Practice and Policy

Professional learning and consultation were central to shaping the approach to the 1:1 device deployment and ensured that practice and policy were informed by staff experience, learner needs, and wellbeing considerations. As part of the 2022-2025 digital roadmap, the *Fife Digital Cultures Programme* supported schools to reflect on digital confidence, readiness, and priorities through an enquiry-based approach, supported by the Fife Pedagogy Team. This enabled individual settings to identify local needs and areas for development, ensuring that professional learning priorities aligned with children's rights, inclusion, and wellbeing from the outset.

Professional learning was designed as an ongoing, adaptive process rather than a one-off intervention. A combination of core training sessions, self-directed materials, and practical guidance supported staff to build confidence and integrate digital approaches into teaching practice. This approach supported equitable access to learning materials and allowed staff to engage with content at a pace appropriate to their role and context. Feedback mechanisms, including session evaluations and ongoing engagement opportunities, ensured that provision remained responsive to staff needs. Where specific requirements were identified, bespoke sessions were provided, including targeted support for settings delivering additionally out with mainstream school provision.

All schools also received follow-up 'masterclass' sessions delivered by members of the *Transforming Learning Team*. These sessions supported staff to consolidate learning, address practical questions, and plan how learning would be translated into classroom practice and learner-facing activity. To further support consultation and iterative development, self-led video content was created and shared across Fife, and ongoing drop-in sessions were established for *Transforming Learning Ambassadors*. These sessions provided structured opportunities for staff to seek clarification, pose questions directly, and share reflections with central teams.

"The masterclass was hugely valuable for staff and pupils and good to get time to sort out the little glitches that were happening as well."

Together, these approaches ensured that professional learning was a consultative and reflective process that informed decision-making, resource development, and framework design. This early investment in professional development helped shape a deployment model that was responsive to staff voice, aligned with rights-based and wellbeing-focused principles, and designed to support consistency and confidence ahead of full implementation.

"Learning new ways to integrate digital technology into my classroom practice leading to improved outcomes." Staff response

"Training, at flexible times (online courses I can do at a time of my choosing), in recommended software, websites, features or equipment. Time to 'tinker' with these new resources. A consistent approach, mentioned above, would also help implement this initiative." Staff response

Foundational Frameworks Children’s Rights and Wellbeing

These developments are underpinned by national policy and children’s rights frameworks, including the United Nations Convention on the Rights of the Child (UNCRC) and Getting it Right for Every Child (GIRFEC), which emphasise equity, inclusion, wellbeing and participation. An Equity Impact Assessment was completed. While a formal Children’s Rights and Wellbeing Impact Assessment (CRWIA)⁴⁹ was not undertaken, the principles of these frameworks are reflected in the focus on equitable access, inclusion, participation and the need to balance safeguarding with children’s rights to education, information and participation.

Digital devices support key rights, including access to education, information, and opportunities to be heard, and are increasingly integral to participation in modern learning environments. Table 2 provides an overview of relevant indicators and rights. Outlining how access to digital devices aligns with children’s rights and wellbeing frameworks.

A balanced, rights-based approach is required. While restrictions on device use may be appropriate in some contexts, they must be proportionate and should not create barriers to learning or exacerbate existing inequalities. Alignment with GIRFEC requires that decisions support children’s best interests, wellbeing, and equitable access to opportunities.

Table 2 – Indicators and rights related to digital device access restrictions

Framework	Indicator/Right	Background
SHANARRI	Achieving	Digital tools are essential for learning and achievement in modern education. Removing access can hinder progress.
	Included	Digital participation is part of social and educational inclusion. Denying access risks isolation.
	Respected and Responsible	Children should have a voice in decisions affecting their learning tools.
UNCRC	Right to Education	Digital devices are now integral to accessing education.
	Access to Information	Children have the right to information through media and technology.
	Right to be Heard	Decisions about digital access should involve the child’s views.

Summary of Practise and Policy Consultation

Across Fife, local initiatives, consultation, and professional learning, underpinned by children’s rights and wellbeing frameworks, have collectively shaped a 1:1 device approach that emphasises equitable access, consistent and informed practice, and proportionate, wellbeing-focused policy.

⁴⁹ Scottish Government. (2024).

Support and Implementation

3. How are children, staff, and families supported in the responsible use of digital devices for learning, and what safeguards and practices are in place to ensure safe and effective implementation across school and home settings?

Ensuring the responsible use of digital devices is critical to maximising the educational benefits of the 1:1 rollout while safeguarding children's wellbeing, safety, and rights. This section explores how a whole-system approach across Fife supports children, staff, and families to use digital technology safely, ethically, and effectively. It examines the range of supports, policies, and technical safeguards in place to promote consistent practice across school and home environments, alongside the systems used to manage risk, build confidence, and support continuous improvement.

Supporting Responsible Use of Digital Devices for Learning

Supporting the responsible use of digital devices is essential to ensuring that technology enhances educational experiences while safeguarding children's wellbeing, safety and rights. Across Fife, a whole-system approach ensures that children, staff, and families are equipped with the knowledge, skills, and shared understanding required to use devices safely, ethically, and effectively across school and home contexts.

Support for Children

Children are supported through structured digital literacy, wellbeing, and inclusion frameworks.

- **Digital Literacy and Safety**

The Fife Digital Learning and Literacy Progression structure⁵⁰ provides a consistent framework from early years to S4, supporting skills in digital literacy, cyber resilience, and safe online behaviour. It supports a consistent progression of digital skills for all learners, including the use of appropriate content and responsible digital practices such as copyright awareness and seeking permission when taking photographs or videos of individuals. Secure platforms such as Glow provide a safe and controlled environment for developing these skills.

- **Wellbeing and Digital Citizenship**

Learners are supported to understand safe online behaviours, manage screen use, and respond appropriately to risks, promoting digital resilience and responsible citizenship. Appropriate tools and processes are in place to enable them to report concerns to staff.

⁵⁰ Fife Council - Fife Digital Learning and Literacy Progression (2025).

- **Access and Inclusion**

Provision of digital devices supports equitable access to learning and helps reduce disadvantage, ensuring all learners can engage with digital learning and develop essential skills for further education, training, and employment.

Structured device provision, alongside built-in accessibility tools (e.g. text-to-speech, translation, overlays), enables learners, particularly those with additional support needs, to access the curriculum more independently, confidently and personalise their learning.

- **Targeted Support**

Targeted support from specialist services and ongoing professional learning for staff further strengthens inclusive practice, helping ensure consistent, sustainable, and effective use of digital technologies across settings. The Assistive Technology Support Service (ATSS), working in partnership with the Transforming Learning Team, supports learners requiring technology-based solutions to access the curriculum effectively. This includes transitioning learners to appropriate devices and developing sustainable approaches to ensure timely, equitable, and affordable provision. ATSS also builds staff capacity through authority-wide and targeted professional learning on accessibility and inclusive practice, alongside bespoke support for more complex and specialist needs. Evaluations indicate increased staff confidence in supporting digital access. In addition, ATSS has developed toolkits and self-directed resources to promote consistency and strengthen digital learning and inclusive practice across schools. This includes a comprehensive Literacy and Numeracy Toolkit providing quick access to digital resources designed to enhance learning and teaching. In addition, a range of self-led professional learning materials has been created to support staff in developing their confidence and effective use of key digital tools, such as Clicker, Book Creator, and other core applications.

Support for Staff

Staff are supported through sustained professional learning, clear policy frameworks, and collaborative networks. Building on the professional learning and consultation that shaped the initial design of the 1:1 deployment, ongoing professional development now focuses on supporting consistent, safe, and effective implementation across all settings.

- **Professional Development**

Ongoing professional learning supports staff to use digital devices safely and effectively, covering digital pedagogy, safeguarding, digital citizenship, and device management. This is delivered through a flexible mix of in-person, online, and self-directed approaches, underpinned by the Fife Digital Learning and Literacy Progression framework.

Additional support includes shared guidance, resources, and a glossary to build confidence and consistency, alongside enquiry-based professional learning through the Digital Cultures programme. Peer networks, ambassador roles, and collaboration spaces further support knowledge-sharing, problem solving and consistent practice.

Professional learning also ensures staff can respond appropriately to safeguarding and wellbeing concerns, with regular updates on approved platforms, emerging risks, and best practice to support the sustained implementation of safe and effective digital learning. This sustained approach supports not only the safe implementation, but the long-term embedding of responsible, inclusive, and confident digital practice.

- **Policy and Guidance**

Clear policies and guidance underpin staff use of digital technologies, covering acceptable use, safeguarding, data protection, device management, and incident reporting. These provide a consistent framework that supports responsible practice and timely, proportionate responses to concerns.

Staff are required to use approved devices, software, and platforms that meet safety, security and data protection standards, ensuring compliance with Council policy and GDPR requirements. Ensuring personal data is managed securely and in line with statutory responsibilities.

Monitoring and reporting systems, including the use of Lightspeed and central processes, enable concerns to be identified, escalated, and managed consistently across the authority, with plans to extend these capabilities directly to schools. This ensures concerns can be investigated appropriately while maintaining data protection and safeguarding standards

Schools can also request that specific websites are blocked or raise concerns about online content through the established First Contact processes. These procedures support schools to escalate issues, seek timely advice, and apply protective measures where required, ensuring a consistent approach across the authority.

- **Peer Support and Communities of Practice**

Opportunities for peer support and collaborative professional learning are embedded to promote staff confidence and consistency in digital practice. Digital ambassadors act as key points of contact within schools, supporting colleagues by sharing practice, communicating guidance, and signposting relevant professional learning.

These networks are supported through online collaboration spaces, regular drop-in sessions, and in person showcase events, enabling engagement with central teams and peer learning. Wider collaboration platforms further facilitate resource sharing and knowledge exchange, helping to build consistency and spread effective practice across schools and clusters.

Support for Families

Families are supported to engage confidently with digital learning through guidance, communication, and targeted engagement, promoting safe use, shared home–school expectations, and equitable access across varying levels of digital confidence.

- **Parental Engagement and Education**

Families are supported to engage confidently with digital learning through a range of educational resources, guidance, and activities designed to promote safe, effective, and purposeful use of digital devices at home. Workshops, guides, and frequently asked questions (FAQs) have been developed to help parents and carers understand

how digital devices are used to support learning and how they can support their children effectively.

A centrally developed parental engagement support pack was created and distributed in advance of deployment in each school. This resource built on established work from safeguarding and wellbeing teams, as well as learning from other local authorities with established 1:1 device programmes. The pack supports families to understand expectations, safeguards, and available supports, and address common concerns associated with digital device use and device use for learning.

Parental engagement evenings have been delivered using a centrally developed presentation designed to:

- Explain the overall aims of the *Transforming Learning in Fife* strategy
 - Reassure parents regarding device safety and safeguarding
 - Provide guidance on the use of the Jamf Parent app to support restrictions out with school hours
 - Highlight opportunities for parental engagement with learning via the Showbie platform
 - Encourage dialogue between parents and children on safe online use
 - Clarify arrangements relating to device care and repair costs.
- In addition, a programme of parent engagement meetings were delivered in response to parental concerns, offering reassurance and guidance on issues such as screen time, wellbeing, and the impact of digital learning, helping to build understanding, confidence, and consistent practice across home and school environments.

- **Promoting Online Safety and Home-School-Dialogue**

Promoting online safety and encouraging open dialogue between parents and children about online behaviour is a central aim of the *Transforming Learning in Fife* strategy. Families are actively encouraged to engage in regular conversations with young people about their online activity, digital wellbeing, and safe use of technology.

Online safety messaging is reinforced through multiple channels. During device deployment, learners are directed to access and bookmark the *Transforming Learning* safeguarding page on their devices. In addition, primary and secondary safeguarding communications have been produced and shared with schools for distribution to families.

Throughout the 2025/26 academic year, a series of communications were issued to all parents and carers from the Head of Education, emphasising the importance of discussing online safety within the home.

- **Communication**

Regular communication and parental agreements⁵¹ provide clear expectations around safe and responsible device use, supporting transparency and shared responsibility between schools and families. Families receive updates on the *Transforming Learning in Fife – Journey to 1:1* programme⁵² through established

⁵¹ Fife Council – Transforming Learning in Fife – Parental Agreement (2025).

⁵² Fife Council – Transforming Learning in Fife – Journey to 1:1 (2025).

communication channels, ensuring transparency around aims, progress, and implementation.

- **Access and Equity**

Targeted support and family learning programmes help address differences in digital confidence and access, ensuring families are supported to engage with digital learning and reducing inequalities. Where parents have expressed concerns or considered opting out of device provision, a dedicated support letter has been developed to provide reassurance, clarify safeguards, and outline the educational rationale and supports in place.

Safeguards and Practices

Technical Safeguards

A range of technical safeguards are in place to protect children when using digital devices for learning. Device management systems, including the Jamf application, are used to manage school-issued devices. Learners only have access to applications that have been approved for educational use by Fife Council educators.

Internet access is safeguarded through online filtering systems, which operate within school environments and, where applicable, on school-managed devices when access on home networks. The primary technical solution used to support online protection is Lightspeed, which provides filtering and monitoring to help safeguard learners when they are online, whether they are using devices in school or at home.

On school-based devices, content filtering is applied through the Council network. This approach enables access to a broad and continually evolving range of educational resources while providing safeguards against inappropriate content, although systems may operate differently across school and home networks. Recent pilot activity has extended filtering tools to 1:1 devices used out with the school setting, enabling school staff to manage access to online content beyond the school environment.

Policy and Guidance

Safeguards are supported by a clear policy, including acceptable use policies, safeguarding protocols, and data protection measures. The *Acceptable Use of ICT Policy*⁵³ for the *Transforming Learning in Fife – Journey to 1:1* helps learners to understand when and how digital devices should be used, reinforcing that technology is intended as a tool to support learning rather than a constant distraction.

Staff are expected to adhere to data protection requirements in line with GDPR and the Council's *Data Protection Policy*⁵⁴. All digital practice also aligns with established Council and Child Protection in Fife child protection and wellbeing policies, ensuring that the use of digital technologies is consistent with wider safeguarding responsibilities.

Acceptable use agreements further support shared understanding by clearly outlining expectations for responsible device use. Staff are expected to model positive and responsible digital behaviours, including appropriate online communication, effective

⁵³ Fife Council – Transforming Learning in Fife – Acceptable Use of ICT Policy (2025).

⁵⁴ Fife Council – Data Protection Policy (2021).

research skills, and balanced use of digital technologies, reinforcing consistent messages for learners across learning environments.

Monitoring and Evaluation

Monitoring and evaluation systems are in place to support safeguarding, identify potential risks, and inform appropriate responses to concerns arising from the use of digital devices. These systems provide a consistent mechanism for reviewing online activity and ensuring that concerns are managed proportionately and in line with established procedures. Evidence gathered through monitoring and reporting can also be used to inform ongoing review of guidance and practice, ensuring that documentation remains responsive to emerging risks and supports continuous improvement in safeguarding arrangements.

The Lightspeed system can be used to review online activity history of individual learners where concerns are identified. At present, requests to access learner activity history are managed through the central First Contact process. This ensures that reviews are undertaken appropriately and in line with safeguarding and data protection requirements. Plans are in place to extend this capability directly to schools, supporting more timely identification and management of concerns while maintaining appropriate oversight.

Schools can also request that specific websites be blocked and raise any online safety concerns through the same First Contact process. These procedures are well established and support schools to escalate issues, seek advice, and apply protective measures consistently across the authority.

Summary of Support, Safeguards and Practices

Fife Council has developed a comprehensive and well-developed framework to support the responsible use of digital devices for learning. Strong systems are in place across learning, teaching and safeguarding, and wellbeing, underpinned by clear progression pathways for children, structured professional development and guidance for staff, purposeful engagement with families, and robust technical and procedural safeguards. Together, these supports help ensure that digital technologies enhance learning while protecting children's safety, rights, and wellbeing.

A key strength of the current approach is the emphasis on shared responsibility and balance. Children are supported to develop digital literacy skills, resilience, and responsible behaviours through structured learning pathways; staff are equipped through professional learning, and policy and guidance to model and manage safe digital practice; and families are actively engaged through communication, guidance, and opportunities for dialogue. This whole-community approach recognises that safe and effective use of digital devices cannot be achieved within schools alone and relies on consistent messages and shared understanding across school and home environments.

The safeguards and practices that have been implemented, such as approved platforms, device management systems, filtering and monitoring tools, and established reporting and escalation routes provide a strong protective framework. Importantly, monitoring and evaluation processes create a feedback loop that allows emerging risks, concerns, and patterns of use to inform the ongoing review and refinement of guidance, policies and practice. This reflective approach supports continuous improvement as technologies evolve and learners' needs change over time.

At the same time, there is recognition of the importance of maintaining digital wellbeing and healthy balance, ensuring that technology complements rather than replaces high-quality

relationships, physical activity, play, and wider learning experiences. Supporting learners to transfer safe and responsible digital behaviours across different contexts, including home use and key transition points, remains central to sustaining positive outcomes and confidence in digital learning.

Suggested Areas for Improvement

While strong foundations are in place, the evidence also highlights a number of areas where further development could strengthen impact. These include:

- **Strengthening Learner Voice**

Further opportunities could be developed for children to contribute to the review and development of digital learning guidance, acceptable use expectations, and online safety approaches. This may include informal chats to more structured discussion groups, potentially supported by learner digital leadership or ambassador roles, supporting digital citizenship by empowering learners as active participants rather than passive users.

- **Enhancing Digital Wellbeing and Balance**

Guidance for learners could be expanded to further embed healthy digital habits, including managing screen time, focus, and emotional wellbeing alongside learning. There is scope to promote more structured reflection with learners on how digital tools support learning, creativity, and wellbeing, and to integrate digital wellbeing more explicitly within health and wellbeing learning.

- **Supporting Safe and Consistent Use Across School and Home**

Continued development of approaches to support the safe use of school-managed devices when used out with the school environment is recommended. This includes helping learners to transfer responsible digital behaviours across different devices, networks, and contexts, and ensuring clear support at key transition points, such as early years to primary, P7 to S1, and school to post-school pathways. Recognising parental feedback around filtering and different home contexts, explaining how filtering is configured and the Lightspeed system again, and also during transitions between stages.

- **Further Supporting Families**

While engagement with families is strong, further work could focus on targeted support for families with lower confidence or variable access to technology. Clear, accessible guidance and consultation with families could help identify additional ways to build confidence in supporting learning and online safety at home, promoting equity and sustained engagement.

- **Clarifying Expectations for Staff Practice**

Continued reflection on guidance that supports safe, responsible digital practice for staff, as well as learners, may be beneficial. This could include considering whether expectations are further strengthened through a dedicated Acceptable Use of ICT Policy for staff using school-provided digital devices, clearly outlining responsibilities within both school and home contexts.

Overall, Fife Council's approach reflects a mature, reflective, and evolving digital learning strategy that balances opportunity with safeguarding. Continued emphasis on learner voice, wellbeing, equity, and partnership with families will further strengthen the responsible and

inclusive use of digital technologies for learning, ensuring they continue to support positive outcomes for all children.

Evaluation and Communication

4. How is the use of digital devices for learning evaluated and communicated in Fife, and what impact do these practices have on learner engagement, staff feedback, and parental involvement?

This section outlines how the use of digital devices for learning is evaluated and communicated across Fife. It describes the formal and informal approaches used to gather and share feedback from learners, staff and families, and how this evidence is used to inform practice. It also considers the impact of these evaluation and communication processes on learner engagement, staff confidence, and parental involvement within the Transforming Learning programme.

Across Scottish local authorities, evaluation of 1:1 device rollout has typically adopted a mixed-method, framework-aligned approach, combining administrative data, inspection evidence, digital analytics, and stakeholder voice.

Evaluation of Digital Device Use

Evaluation of digital device use is an ongoing and iterative process, rather than a one-off activity. It is aligned with safeguarding responsibilities, improvement planning, and the need to respond to emerging evidence as digital learning continues to embed across settings.

- **Attainment**

Improving educational attainment for all groups and closing the attainment gap is a key improvement priority within the Education Services Directorate Improvement Plan (2023-2026). Within the context of 1:1 device implementation, it is difficult to attribute changes in attainment outcomes directly to device access, given the influence of multiple confounding variables. Attainment will be evaluated using a range of system-level and proxy indicators, reflecting the complexity of attributing changes directly to the device rollout. These measures are intended to capture potential contributions to attainment within a broader educational and socio-technical context. Indicators include:

- An increase in the number of HMle inspection reports evaluating the use of digital technology as a strength within Quality Indicator (QI) 2.3 (Learning, Teaching and Assessment).
- An increase in HMle evaluations citing learner engagement with digital technology as a strength within QI 2.2 (Curriculum: Learning Pathways).
- Improvement in CfE Attainment data for literacy and numeracy reported annually.
- Progress towards established stretch targets for specific disadvantaged learner groups.
- An increase in the number of school leavers entering positive destinations, reflecting improved digital literacy for the workforce.

- **Attendance**

Consideration to qualitative insights from learners, families, and staff to understand how access to and use of devices may influence attendance behaviours, while recognising the limits of causal attribution. Indicators such as assignment completion,

participation in online learning, remote access during absence to explore whether pupils who remain digitally engaged during absence return more consistently.

- **Accessibility/Inclusion**

Evidence of accessibility tool usage (e.g., immersive readers, translation tools) to show the closing of the gap for learners with ASN.

- **Quality of learning teaching and assessment**

- SAMR progression:
 - 100% of staff using devices for Substitution (e.g., digital whiteboards/jotters).
 - Year 2-3: Evidence of Augmentation and Modification (e.g., redesigned tasks using multi-media or digital collaboration).
 - Year 4: Achieving Redefinition (creating learning experiences that could not exist without the technology).
- An increase in the number of Learning Partnership reports identifying digital technology as a factor in improving classroom quality.
- 95% of teaching staff self-evaluating an increase in confidence using digital technology by June 2028.
- 100% of provisions engaging in the professional learning (PL) opportunities created by the Transforming Learning Team by April 2026.
- An increase in schools achieving the national Digital Schools Award Scotland (with a target of a 25% increase by 2028).

- **Engagement**

- Statistics showing regular engagement (weekly or higher) with core platforms like Showbie and Glow.
- Parental Involvement: Measuring engagement with digital learning portfolios via Showbie, allowing parents to view feedback and coursework safely.

- **Operational Success**

- Maintain breakage/loss rates at or below 3%.
- Reduction in "Digital Downtime." The operational goal is to ensure learners are not without a device for extended periods (2 weeks max).
- Target 92% or higher for daily device readiness.
- School confidence in supporting/maintaining iPad estate is high.

There have been several efficiencies and improvements to systems that have resulted from the deployment of 1:1 device. This includes a substantial reduction in print budgets, in some schools up to 40%, and a decrease in the repair calls of shared devices in schools.

The Libby app is available to all staff and learners, providing free access to digital books through OnFife Library accounts. Since deployment, more than 3,000 new Libby registrations have been recorded, including almost 300 in March 2026, reflecting increased engagement with digital reading.

Formal Evaluation Methods

Formal evaluation methods provide structured and planned opportunities to assess impact, consistency and confidence across stakeholder groups.

- **Feedback from Children**

At this stage, formal authority-wide evaluation of learners' experiences is still developing. Future evaluation is expected to focus on learner engagement, confidence, accessibility, and digital skills development. This will be strengthened through planned engagement with new cohorts and continued collaboration with schools.

- **Feedback from Staff**

As part of ongoing self-evaluation, feedback was gathered from 4,434 teachers who participated in professional learning associated with the 1:1 deployment. Survey findings (see Table 3) indicate that professional learning was broadly accessible and supportive, and contributed positively to staff confidence, knowledge and collaboration.

Table 3 – Teacher survey

	Not at all	To some extent	To a large extent	Very much
To what extent was the method of delivery accessible, supportive, and conducive to professional learning?	1.8%	25.1%	43.3%	29.8%
To what extent did the content of the course meet your professional learning needs?	3.9%	35.7%	37.2%	23.3%
To what extent has the session increased your knowledge and understanding of the area?	3.1%	37.2%	36.9%	22.7%
To what extent has the session increased your confidence in this area?	7.2%	42.9%	32.6%	17.4%
To what extent did the session contain an appropriate balance of tasks and adequate opportunities for professional dialogue?	6.4%	34.4%	38%	21.3%
To what extent did the professional learning enable you to collaborate with colleagues and share practice?	8.7%	36%	34.9%	20.4%

Staff feedback indicates that professional learning sessions have supported the development of classroom practice, with participants highlighting increased confidence in using digital tools to enhance learning and improve inclusivity and feedback.

Qualitative feedback further highlighted the perceived impact on inclusive practice and feedback within the classroom:

"I think the techniques introduced will make learning in my classroom more inclusive for all learning needs within my class. I also think the techniques shared will help improve feedback in my classroom."

While staff confidence continues to develop, there is evidence of reflective practice and a willingness to build skills and "have a go" with new approaches. The sessions have also provided valuable opportunities for sharing practice and professional dialogue, with 91.3% of staff reporting that collaboration with colleagues has been supportive in building confidence and promoting good practice.

Staff feedback also indicates a developing culture of reflective practice and confidence to trial new approaches:

"I enjoy discussing ideas with colleagues to build confidence and share good practice."

- **Feedback from Families**

Feedback from families has been gathered through a recent parent survey to inform evaluation of safeguards and support for digital device use. Findings indicate a high level of parental confidence in the safety of school issued devices, with 88% of parents reporting that they consider the device to be a safe device for their child to use.

The survey also indicates that parents feel confident discussing online safety with their children. This suggests that many families are actively engaged in conversations about digital use, online behaviour, and safety at home, reinforcing the shared responsibility between schools and families in supporting responsible digital citizenship. This level of engagement is an important positive factor in mitigating online risk and supporting safe and effective use of digital devices beyond the school environment.

While the findings are positive, they also suggest that engagement levels may vary across families. This reinforces the importance of continuing to provide accessible guidance, clear communication, and targeted support for those families who may feel less confident or require additional reassurance or advice.

Stakeholder engagement has influenced the ongoing development and delivery of Transforming Learning. Early feedback from learners, parents/carers and staff has informed device design, safeguarding approaches and baseline understanding of digital confidence. Further in-person and online engagement is planned to support the new cohorts, including the P6 intake from June 2026.

While a small number of concerns have been raised around responsibility and screen time, early evidence suggests that devices are generally being used appropriately, reflected in low levels of reported damage. This indicates that the Directorate's partnership approach, working with schools, learners and families to promote responsible use both in school and at home is having a positive impact.

The directorate takes parents' concerns about screen time seriously and will continue to provide reassurance that improved outcomes are driven by effective teaching, not technology alone. Devices are intended to support learning where they add value, not to replace high-quality teaching or traditional approaches. Teachers are encouraged to use their professional judgement, selecting digital tools only when they meaningfully enhance learning.

The introduction of 1:1 device has led to more regular, embedded use of digital learning tools, particularly in secondary schools and upper primary stages. While total session volumes remain broadly comparable, the pattern of use in 2026 reflects a shift from occasional access to routine, everyday learning activity.

These formal evaluation processes support consistency, transparency, and accountability, ensuring that evidence is systematically gathered and used to adapt practice where required.

Informal Feedback Channels

Informal methods provide ongoing, context-specific insight into learner experience and practice at school level, complementing formal data.

A growing body of anecdotal evidence from schools suggests:

- Improved learner engagement
- Increased return rates for homework in some areas (e.g. Levenmouth schools)
- Increased uses of accessibility tools to support inclusion.

This evidence is reflected in teacher and learner feedback forms, as well as showcase videos produced by the Council's Communications Team highlighting emerging practice within schools.

- **Feedback from Children**

Informal learner feedback gathered through classroom discussion and observation highlights 3 recurring themes:

- Organising and study efficiency - *"It's made it so much easier to take notes and study"*
- Accessibility and inclusion - *"Since I am dyslexic, it's been easier"*
- Improved access to resources – *"Easier to access resources in Showbie and Teams"*

- **Feedback from Staff**

Teachers report that feedback through digital platforms is becoming timelier, supporting responsive adjustments to learning and teaching.

Communication Methods

Formal communication mechanisms are planned activities, used to ensure clarity, consistency, and shared understanding across schools and families. Informal communication supports trust, responsiveness, and partnership.

- **Internal Communication**

A range of communication channels have been used to support the implementation of Transforming Learning across Fife. The Council's Communications Team has utilised the internal intranet to share key updates and good news stories, while a dedicated Transforming Learning intranet page has acted as a central hub for policy, guidance and deployment information for schools. Regular updates have also been disseminated through weekly education bulletins and headteacher briefings, with additional targeted communications, including a fortnightly newsletter, provided during key phases of rollout. In addition, a network of school-based ambassadors has been established to support two-way communication, acting as points of contact to facilitate engagement and feedback. ATSS facilitated a session during the authority's *Dive into Digital Week* to share with a wider audience including professionals and parents.

- **External Communication**

External communications have been supported by the Council's Communications Team through the use of official social media channels to raise awareness of Transforming Learning at key milestones, including initial, mid-point and final device deployments. This has included the development of videos hosted on the Council's YouTube channel.⁵⁵ At a local level, schools have also used newsletters and letters to communicate with parents and carers, providing updates, signposting to relevant resources, troubleshooting and offering guidance and support for device use at home. Filming in schools started work in February and videos are currently being produced with supporting case study information. Planned engagement sessions/events have been led by central teams.

- **Transparency and Engagement**

Ongoing communication and engagement have been supported through monthly ambassador calls, which provide a forum to share updates, gather feedback and facilitate professional dialogue. These sessions are recorded to enable wider access and continued contribution. Broader stakeholder engagement has also been undertaken with learners, staff and parents/carers, alongside targeted engagement with Parent Council Chairs to share information and support discussion.

⁵⁵ TheFifecouncil YouTube. (n.d).

Summary of Evaluation and Communication

Evidence from both formal and informal evaluation indicates a positive early impact on staff confidence, learner engagement, and parental trust. Staff report increased confidence, improved collaboration, and a growing willingness to integrate digital tools into classroom practice. Emerging learner feedback highlights improvements in organisation, accessibility, and access to learning resources.

Feedback from families indicates strengthened trust and engagement, with high reported confidence in device safety and increased confidence in discussing online safety at home. However, variation in confidence remains, particularly around screen time and learner responsibility. This reinforces the importance of continued communication and targeted engagement with families.

By drawing on a combination of formal and informal approaches, evaluation and communication are embedded in everyday practice while also supported by structured, authority-wide processes. This balanced approach strengthens consistency, responsiveness, and trust, and supports ongoing refinement of digital learning, safeguarding, and engagement strategies as technologies and learner needs evolve.

Effective implementation of 1:1 device rollout is underpinned by robust evaluation and clear communication. Systematic evaluation enables ongoing assessment of progress, identification of emerging challenges, and evidence-informed refinement of approaches. Complementary communication ensures that stakeholders, including schools, learners, and families, have a clear understanding of the aims, expectations, and progress of the rollout. Together, these functions support transparency, build trust, and facilitate more consistent and responsive implementation across settings.

Suggested Areas for Improvement

A number of areas require development regarding evaluating the key objectives of the device rollout.

- **Strengthen formal evaluation of learner voice and experience**

Evaluation of the rollout will be strengthened through a more formalised and systematic approach to capturing learner voice and experience. This would provide qualitative insight into patterns of access, engagement, and the perceived impact of 1:1 device provision, and support evidence-informed policy development, platform design, and classroom practice.

- **Develop clearer authority-wide measures of learner engagement and impact**

Further development of consistent authority-wide measures of engagement and impact, including attainment, attendance, inclusion, and wellbeing, will strengthen evaluation. This will support a more consistent and systematic approach to evaluating the outcomes of device rollout across different settings and learner groups, and impact on standardising teaching across the local authority. This may include surveys, usage analytics, attainment data, and wellbeing indicators. Evidence from other authorities suggest measurable impacts of 1:1 devices, including reduced non-attendance, improved engagement and motivation from individual learners, positive feedback from families and stakeholders, and enhancements to the learning and teaching process.

- **Further develop use of filtering and monitoring systems to inform evaluation and practice**

There is an opportunity to further develop how filtering and monitoring systems (e.g. Lightspeed) are used to inform evaluation and practice. This includes using system-generated data to identify patterns of use, emerging concerns, and areas of risk, and ensuring these insights are used to inform proportionate responses, guidance, and support. Further consideration could be given to how escalation routes and reporting processes are evaluated, including staff response timeliness, proportionality, and consistency, and how emerging issues are identified and addressed through established systems.

- **Strengthening evaluation of pedagogical impact**

Further work is needed to develop approaches to assess the impact of digital devices on teaching practice and pedagogy. This includes capturing staff reflections on classroom management, safeguarding confidence, learner behaviour, engagement, and the extent to which devices support learning, inclusion, and accessibility. Consideration should also be given to how this feedback is gathered and shared through existing structures, such as staff discussions, school and cluster meetings, and digital ambassador networks, to support collective reflection and inform ongoing improvement in practice.

- **Continue targeted support for families with lower confidence**

Targeted support for families with lower levels of confidence in digital engagement should continue, recognising the role of the home environment in enabling equitable access to and effective use of 1:1 device. This supports inclusive participation and helps mitigate disparities in learner experience and outcomes.

Conclusion

The report draws together findings in relation to four key research questions, exploring the opportunities and risks associated with digital devices for learning, the influence of local initiatives and professional learning, the support and safeguards in place for responsible use, and the approaches to evaluation and communication across Fife.

In relation to opportunities and risks, the findings highlight the potential for digital devices to enhance learner engagement, support inclusive learning, and enable greater personalisation and improved feedback. In particular, digital tools can improve accessibility for learners with additional support needs. However, considerations remain around screen time, online safety, digital distraction, reinforcing the need for a balanced and proportionate approach.

The findings also demonstrate that local initiatives, consultation and professional learning have played a significant role in shaping practice and policy. Engagement with learners, staff and families, alongside alignment with children's rights and wellbeing frameworks, has supported the development of an approach that is responsive to user needs and grounded in inclusive and equitable practice.

In terms of support and safeguards, a range of measures are in place to promote the responsible use of digital devices across school and home settings. These include clear guidance, ongoing communication, and partnership working with schools and families. Evidence indicates that most learners are using devices responsibly, supported by this collaborative approach.

The evaluation and communication of digital learning are supported through a range of formal and informal mechanisms, including stakeholder feedback, professional dialogue and regular communications. These processes contribute to ongoing improvement and have had a positive impact on learner engagement, staff confidence and parental involvement. Further development is required to establish clear evaluation measures to assess the impact of digital devices on attainment, teaching, and learner outcomes. This is embedded as an ongoing process, not a one-off activity, and aligned with safeguarding and improvement planning. Communication approaches ensure stakeholders have clear information about the purpose of digital devices, safeguards in place, and shared responsibilities.

The report highlights that digital devices for learning should be embedded within strong pedagogical practice, with a clear focus on enhancing teaching rather than replacing it. It emphasises the importance of ongoing professional learning to build staff confidence and capability, alongside strong leadership to support consistent and effective implementation. The report also outlines the need for clear communication and engagement with learners, staff and parents/carers, and the use of evaluation and feedback to inform continuous improvement. Overall, the report concludes that the successful use of digital devices depends on thoughtful implementation, where opportunities are maximised and risks are actively managed within high-quality teaching practice, emphasising the importance of maintaining a balanced approach to digital and non-digital learning, ensuring that technology is used where it adds clear value and is supported by professional judgement.

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About this report

Fife Council Research and Insight Team works on prioritised projects to deliver strategic insight for the Council and community planning partners in Fife.

We aim to deliver engaging high-quality general insight for those involved in delivering public services across Fife.

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Important notes on this report

1. This report has been commissioned by Education Directorate to inform the Transforming Learning Strategy.
2. The report provides a contextual overview of the role of 1:1 digital device in supporting teaching and learning, drawing on relevant research and evidence.
3. For further information regarding the Transforming Learning Strategy in Fife please contact education.services@fife.gov.uk.