Inspiring Futures through Learning

Impact on learning: Impact on Futures

An independent impact study about the role of 1:1 provision for learners across IFtL schools

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www.iftl.co.uk/Pedtech

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Impact on Learning: Impact on Futures.

An independent impact study about

the role of 1:1 provision for learners across the

Inspiring Futures through Learning family of schools

March 2026

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Executive Summary

This report presents the findings of a comprehensive impact study evaluating the "Futures" project—a strategic digital transformation initiative across the Inspiring Futures through Learning (IFtL) multi-academy trust. The trust, comprising 20 schools serving over 8,500 pupils, embarked on a vision in 2022 to increase equity and accessibility through the deployment of 1:1 iPad provision.

This impact study, conducted over 18 months and involving a team of 93 leaders and teachers, examines the impact on children across all schools in the trust. The study moves beyond traditional operational and accountability metrics to examine the lived experiences of learners and teachers, and the ways in which digital tools have been used support, extend, and enhance pedagogical practice.

The study involved 150 classroom observations, 3,979 survey responses (from children, teachers, and leaders), 64 focus groups, and 42 interviews.

The data in this research study indicates that the strategic deployment of digital tools has been highly effective, with digital use embedded as a now-normal way of working across the trust.

The implementation was characterised by:

- **Pedagogy-First Approach:** Decision-making was culturally informed, ensuring digital tools aligned with the "Characteristics of Effective Learning" and the trust's commitment to inclusion.
- **Standardised Digital Package:** A core suite of tools (iPads, Showbie, Socrative, Apple Classroom, Accessibility tools) was selected to streamline workflows, support cognitive load, and facilitate real-time feedback.
- **Systemic Staff Development:** The *Future Ambassadors* model and *IFtL Varsity* provided expert-led Communities of Practice, ensuring staff developed both digital skills and the pedagogical knowledge to apply them effectively.

Headline findings

Across Inspiring Futures through Learning schools include an 8% increase in the number of children achieving age related expectations across Reading, Writing and Maths since the introduction of 1:1 iPad provision, in contrast to a relatively static national average.

Furthermore, the use of digital tools to support children at risk of deregulated behaviour has significantly reduced the number of suspensions over the last 3 years – by up to 50% in some of the IFtL schools.

Perspectives and Engagement

- **High Impact:** 98% of leaders and 93% of teachers reported that digital tools make a positive impact on children's learning.
- **Learner Preference:** Children ranked interactive digital activities (voice notes, quizzes, creation) significantly higher than traditional passive activities (listening to teacher talk, copying from boards).
- **Behaviour:** 72% of leaders reported notable improvements in classroom behaviour following the introduction of 1:1 devices.

Accessibility and Inclusion

Accessibility proved to be a central theme, with digital tools acting as a democratising force in the classroom.

- **Removing Barriers:** Features such as text-to-speech, translation, and screen masking allowed learners to access high-quality stimulus materials independently, reducing dependency on adult intervention for low-level support.
- **Dignity in Learning:** Digital tools allowed for private responses to questions, removing the social anxiety associated with "hands-up" participation and allowing vulnerable learners to engage without fear of public failure.

The Evolution of Teaching and Assessment

The presence of 1:1 devices has facilitated a shift in the teacher's role from the sole source of instruction to a facilitator of learning.

- **Rewinding the Teacher:** The use of recorded instructional videos and voice notes allowed students to revisit teaching inputs on-demand. This metaphorical rewinding capability reduced cognitive load and allowed teachers to repurpose time for targeted, human-centric interventions.
- **Real-Time Assessment:** Tools like Socrative and Learning by Questions (LbQ) enabled real-time, whole-class formative assessment. This automated analysis

allowed teachers to address misconceptions immediately ("keep up" rather than "catch up"), creating more precise adaptive teaching.

- **Productivity:** Analysis suggests digital workflows create approximately 23% additional capacity for learning time by reducing "slippage time" (e.g., handing out papers, transitioning activities).

Wellbeing and Regulation

Contrary to concerns about isolation, the study found that digital tools supported regulation and social interaction.

- **Self-Regulation:** Students utilised tools like headphones for focus and specific apps (e.g., Zones of Regulation) to manage their emotional state.
- **Reduction in Suspensions:** Data indicated a correlation between the implementation of these digital regulation strategies and a reduction in suspension rates, particularly among SEND learners (dropping from 11.48% to 7.41% over three years).

Financial Viability

The study analysed the comparative costs of digital versus traditional resources. The total cost of the 1:1 iPad provision (£17 per pupil per month) was found to be roughly comparable to the historical costs of exercise books, photocopying, and glue (£240 per year), suggesting that, while the digital costs do not replace the historical costs completely, the initiative is financially sustainable while offering superior educational versatility.

IFtL "Futures" project has successfully magnified existing pedagogy, closing the gap between pedagogical intentions and classroom reality. By adopting a pedagogy-first approach, the trust has empowered learners with a toolkit that enhances independence, fosters dignity, and creates capacity for more meaningful teacher-student interactions. The findings suggest that when digital tools are used purposefully, they significantly enhance the "lived experience" of the learner.

1.0 Research Aim

The **purpose** of this research was to surface and articulate the impact of the IFtL approach for supporting learning through the use of digital technology.

The **intention** of the report is to offer a summary of the impact of existing practice, in order to inform future strategic planning across IFtL schools.

This research **focuses** specifically on the ways in which children experience the use of digital tools within classroom activities, and how they respond holistically to those experiences. The digital toolset includes the use of iPads by children and staff, and to the use of the front-of-class board used by the teacher. As this research is concerned with supporting learning across the curriculum, the focus is predominantly on tools where usage transfers across multiple curriculum subjects and therefore does not focus in detail on subject-specific resources.

This research did **not** seek to evaluate the overall quality of teaching and learning.

For clarity, this report uses the following definitions:

c. **Learning:** Experiences that are internalised by an individual learner, and which result in the development of their skills, knowledge or character. Learning will manifest differently depending on the prior experiences, cultural and social capital, characteristics, and attributes of each individual learner, as well as environmental and point-in-time influences.

d. **Teaching:** Actions which are conducted by an individual teacher, in order to operationalise a specific educational intention. Intentions are based upon a combination of school policies and curriculum, professional training and experiences, alongside the cultural and social capital of the individual teacher.

e. **Digital tools:** Apps or websites used by learners or teachers, normally through an iPad or front-of-class board.

f. **Digital learning**: the use of digital tools to support, extend or enhance learning and/or teaching. This is conceptualised as separate to the Computing curriculum.

g. **Blended learning:** a deliberate approach to utilising a range of materials, tools and resources that engage a wide range of senses, skills and experiences. In the context of this report, blended learning is generally used to refer to the combination of both digital and non digital ways of working.

1.1 Background of research in this space

There has been a great deal written and spoken - both published and informally - about the role of digital tools in relation to schools. The scope of this report excludes a full literature review, but it is relevant to highlight that there are permeating issues which shape the existing literature and evidence base. For a fuller analysis please refer to Aubrey-Smith & Twining (2024).

Research methodologies of studies in this space are historically dominated by the over-use of quantitative data (e.g. statistics), or positivistic reductionism applied to qualitative data (e.g. sentiment analysis of the spoken word being taken at face value – an increasing issue with contemporary uses of Artificial Intelligence). These methodologies tend to be favoured by (a) those who seek a correlational relationship between finance or policy and accountability measures, and/or (b) those who have an existing predisposition towards positivistic studies (i.e. who seek a single 'truth'), and/or (c) those whose expertise sits in other areas (often technology, finance or policy) and who seek quick, low-cost, high-headline findings. Such approaches typically over-simplify some very complex variables (e.g. human behaviours over time), and consequently mobilise misuse of research findings (i.e. soundbite headlines being used out of context by non-specialists– again increasingly an issue due to AI being used to shortcut deep understanding of complex research reports). This can be particularly seen with contemporary literature surrounding the so-called screentime debate (e.g. headline grabbing claims being used by high profile media speakers and those promoting popularist book sales).

Alongside this, research addressing the use of EdTech within schools has tended to report on (a) the implementation process of digital tools and systems (often from the perspective of operational colleagues within a school or organisation or a particular supplier or system), or (b) particular elements of use (e.g. engagement levels, specific tools or features). Some studies examine particular school improvement considerations (e.g. role of oracy, metacognition, retrieval of knowledge, assessment systems, productivity etc), and many studies depend upon isolated data generation approaches (e.g. self-reporting surveys as sole data collection tool, one-off or third-party observations). These approaches create distance between the data and the researcher, often creating a wide range of ethical issues and injecting complex biases into the dataset.

Alongside these forms of research, are often large scale surveys which aim to provide new insights into the use of EdTech in schools. Such surveys – often led by sector bodies or associations, data or assessment specialists or inter/national networks – typically craft questions which are designed for large scale data gathering about a topical agenda, necessitating answer types which

are self-reported, subjective, reductionist and often biased towards specific hypotheses. Such surveys similarly lead to published statistics which are commonly used as means for justification of pre-existing agendas.

From a specialist perspective, the most useful way to understand the complex interaction between a child in a classroom and the digital tools that they are experiencing, requires time spent in the classroom using research observation techniques which focus on a holistic understanding of the child, triangulated by research interviews with the child, their peers, their teachers and school staff, and their family – again probing deep into the many influences affecting the child's experience.

Insights from data tool usage analytics, document analysis and scaled survey findings are helpful to inform specific lines of inquiry to probe, but rarely offer meaningful insights relating to understanding children's experiences. This nuance is critical because children's experiences define their conceptualisation of themselves as a learner which in turn shape their internalisation of learning and learner trajectory (rather than short term accountability measures being seen as a proxy for impact on learning).

The difficulty with this approach to research is that it is time consuming and requires specialist expertise (combining a deep understanding of participative research, research techniques specific to children and young people, enhanced pedagogical knowledge, and an understanding of both contemporary classroom practice and the current EdTech landscape). This poses a logistical problem, whilst small scale studies along these lines are often conducted by practitioner researchers (e.g. teachers studying towards postgraduate qualifications), neither schools nor academics typically have this full suite of expertise or access.

The gold standard for research seeking to understand the impact on learners and learning, is therefore arguably a combination of practitioner research, in conjunction with academic critique and analysis. Studies such as these are time consuming, but yield findings that are detailed, contextual, balanced and triangulated.

1.2 Research Questions

The **overarching aim** for this study was to understand the impact of the IFtL approach for supporting learners and learning through the use of digital technology. In order to surface insights that respond to this aim, a set of research questions guided the design of this research project, namely:

RQ1 - How do leaders and teachers intend for digital tools to be used across IFtL, and why?

RQ2 – In what ways are teachers at IFtL using digital tools as part of their professional practice?

RQ3 - In what ways are children at IFtL using or experiencing digital tools, and how do children internalise these experiences?

Focusing specifically on:

(a) access and inclusion
(b) cultural capital and prior knowledge
(c) oracy and the role of talk
(d) adaptive teaching
(e) adaptive learning
(f) wellbeing and regulation
(g) human interaction and collaboration
(h) relationships between home and school

RQ4 – What are the strategic and operational decisions and actions that (a) underpin successful uses of digital tools, and (b) mitigate for associated risks?

During the period July - September 2024, leaders across IFtL schools representing all schools and central functions, took part in a series of workshops which surfaced a range of specific sub-questions and lines of inquiry to pursue. These are summarised below, along with detail indicating which sequence of research methods were used to address the sub questions (shown in italics).

1. **Talk and Technology**
    a. What is influencing the **use** and **role** of **talk** in our classrooms?
    b. Who is **talking, listening, or observing talk** in our classrooms? *Focus group, followed by classroom observations*
    c. **Who is asking** questions, and **what types of questions**, in our classrooms? *Structured observation, followed by focus group and then further classroom observations*

d. What is influencing the **use** and **role** of **group work** in our classrooms? *Focus group, followed by classroom observations*
e. What do different **interactions** between teachers and learners tell us about classroom **relationships**? *Classroom observations*

2. **Responsive and Adaptive Teaching**
    a. What information about learning is sought by teachers in our classrooms? *Classroom observation with pre-observation discussion*
    b. What information about learning is gathered during lessons? *Classroom observation.*
    c. How is information about learning (sought and gathered) used in our classrooms?
        i. In real-time. *Classroom observation*
        ii. Over time. *Research interview and focus groups*

3. **Dignity in Learning**
    a. What barriers do children face in accessing learning in our classrooms?
    b. What is the relationship between leader, teacher, child and parent views on the barriers that children face? *Focus groups for Leaders, Teachers, Children.*
    c. What is the relationship between existing practice, and the potential, for digital provision to support children to overcome these barriers? *Post-focus group classroom observations.*

4. **Cultural Capital and Inequalities**
    a. How do children access and internalise the content and representations within audio, video, image, and text resources (digital and non-digital)? *Classroom observations with target individual children.*
    b. What is the relationship between children's socioeconomic characteristics and levels of digital use within school and home? *Targeted Screentime & Device Survey*

5. **Capacity for Classroom Learning**
    a. What are the typical actions that take place before, during and after lesson time in our classrooms? *Focus group.*
    b. What is the difference in time and human behaviour when these activities take place in digital and analogue form? *Timed tasks combined with observation.*

6. **Underlying Pedagogical Beliefs and Intentions**

a. What are the **explicit** and **implicit** pedagogical beliefs that children are experiencing in our classrooms (and how, and why)? *Classroom observations*
b. What is the relationship between what we **want** to happen in our schools, and what is **actually** happening? *Classroom observations with pre-observation discussion*
c. To what extent do all staff understand **why** we do what we do in our classrooms? *Survey & focus groups*
d. What are the **trends in staff beliefs** across roles and schools? *Survey – based on personas*
e. What is influencing what our **teaching staff** say about their pedagogical beliefs? *Survey, with follow up research interviews & focus groups.*

7. **Children's experiences and internalisations**
    a. What are **children's perceptions** about how their learning is [personally] supported with and without digital? *Classroom observations and focus groups*
    b. How **consistent** are the children's experiences about **learning** as they move up through different year groups? *Classroom observations and focus groups*

8. **Professional Knowledge and Confidence**
    a. Which aspects of supporting **learning with digital** do staff and children feel **confident** about? *Survey*
        i. Which aspects are about **learning**?
        ii. Which aspects are about **digital**?
        iii. What forms of **professional learning** can increase each of the above?
    b. To what extent are staff familiar with, using, and/or confident in using **AI?** *Survey*
        i. What are the **perceived benefits** to workload, productivity, stress, task efficacy and wellbeing? *Survey and follow up focus group / interviews*

2.0 Methodology

With any research, the design of the research team planning and conducting the research plays an important role in determining the robustness and objectivity, and the ethical landscape that the research sits within. A fully external research team (e.g. academic) is unlikely to be able to recognise, source and surface the nuanced complexities of everyday classroom practice – risking an arms-length view or limited access to meaningful datasets. A fully internal research team (e.g. staff or those who have worked historically in or with the schools) is unlikely to retain impartiality and robust objectivity – risking an agenda-driven set of findings. However, a careful partnership of what Hammersley (1993) refers to as Insider Researchers and Outsider Researchers creates both mitigation for the issues above, as well as a mutual Community of Practice (Lave & Wenger, 1991) with a shared learning (research) endeavour.

From an ethical perspective, the design of the research team for this study was therefore paramount in ensuring that:

1) the research design was academically **robust**, whilst simultaneously operationally **achievable**
2) the research questions and lines of inquiry were both grounded both in **classroom practice** and **academic rigour**
3) the ambitious scale of the research was **achievable** within the timeframe and capacity available
4) **access** to classrooms, existing datasets, interview and focus group participants, and survey respondents was inclusive, realistic, timely, representative, sensitive, and reasonable within the context of the many other priorities and pressures facing the human beings involved
5) the **collation and analysis** of data (both data collected and data generated) was **triangulated** by multiple sources, **mitigated** for the many forms of bias that human beings bring, and considered analytically and objectively
6) **ethical considerations were embedded** throughout the research design, data collection and generation, analysis and writing up phases – particularly with a project focused on one organisation, and likely to be of sector-wide interest.

The research team (see Appendix A) – who planned and conducted the research thus consisted of,

- An independent academic lead researcher
- The Head of System Leadership at IFtL (co-lead researcher)
- 4 Executive Leaders (IFtL education team / specialists)

- 24 School Leaders (Head Teachers and deputy Head Teachers)
- 10 Classroom specialists (teaching and learning leads, inclusion leads)
- 15 Future Ambassadors (digital learning specialists)

2.1 Research Design

The **purpose** of this research was to surface and articulate the impact of the IFtL approach for supporting learning through the use of digital technology. The **intention** of the report is to offer a summary of the impact of existing practice, in order to inform future strategic planning across IFtL schools.

To prepare for this research project, in July 2024, the research team (see Appendix A), took part in a series of workshops which surfaced existing insights, assumptions and beliefs about the overarching research aim and anticipated findings. Guided by the independent lead researcher, this process led these insider-researchers (Hammersley, 1993), through a series of activities which surfaced the most appropriate ways to dive deep into each consideration; to gather new (and potentially contrasting) perspectives and insights; and towards a research design that combined external academic rigour with a detailed insider understanding of how best to access, surface and make sense of some very intricate classroom practice and human complexities. A year-long research coaching programme thus complemented this impact study research - enhancing the skillset of many school leaders with existing postgraduate research experience, and developing the skillset of those new to the space. The research techniques introduced can be found in Aubrey-Smith & Hand (2026).

2.2 Data Generation

During the period September 2024 - July 2025, research activity took place over 29 research workshops and site visits, using a number of data collection[1] and data generation[2] mechanisms used to explore the core lines of inquiry from a range of angles. These included:

- 150 observations (classrooms and learning spaces across 20 schools)
- 42 interviews (teachers, leaders, senior and executive leaders)
- 120 learning walks and interviews with children

[1] Data collection – utilising existing documents or extracting material from existing databases (e.g. MIS)
[2] Data generation – stimulating insights through study-specific observations, interviews, focus groups and surveys

- 64 focus groups (including working parties, teachers, leaders, children)
- 3,979 voices through survey responses (children, teachers, leaders)
- 48 classroom based timed tasks and case studies
- 92 documents (including policies, planning, classroom resources, photographs, audio files)

For academic clarity, observations, focus groups and interviews were all semi-structured, utilising stimulus questions or exploratory lines of inquiry in order to balance both scoping and efficacy (Lincoln and Guba, 1985). Class visits were purposively sampled[3] in order to ensure breadth and depth across year groups, subject domains, background and experience of teaching staff and diversity of student characteristics and intake.

A range of approaches to semi-structured observation were undertaken, including whole-lesson observation, observing specific parts of a lesson, observing pre-identified activities or transitions, tracking individual children through sequences of events, and unstructured observation which allowed for unexpected or unanticipated lines of inquiry to develop.

All of the 150 classroom observations utilised some form of pre and post observation discourse with a leader or teacher who was able to provide specific insight and context around the relationship of what was being observed with wider practice. This typically included some discussion about relevant policies and procedures, lesson specific information (Subject, Learning Objective/Intended Outcome, Sequence of activities in that lesson, style and approach of the curriculum and/or subject), teacher context (teaching confidence, pedagogical understanding, digital confidence, career stage and specialism), as well as key details about the class and any focus individual children (e.g. SEND, EAL, PP/FSM, behaviour, social demographics, transitions and mobility).

Surveys were used to surface large scale insights into specific lines of inquiry. As part of this process, specific surveys were piloted, refined and distributed so that all children, teaching staff

[3] Purposive sampling refers to deliberate purposeful choices made in order to ensure specific representation of important characteristics.

and leaders across IFtL had the opportunity to share their insights and perspectives. This also ensured a broad range of representation. For example, it was important to capture teaching staff with a diverse range of experience in order to understand any nuances in relation to teacher knowledge and development.

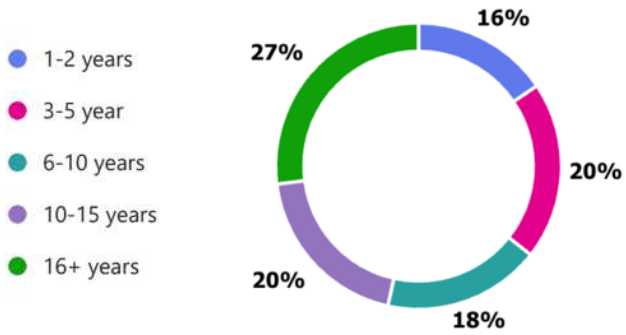


Figure 1: Number of years of teaching experience by those who took part in surveys as part of this study.

As part of this study, learners across IFtL were asked to share their perspectives about their learning experiences. Surveys were drafted, piloted with small focus groups of children, refined to improve questions and language, and then distributed across 8,500 learners. In order to facilitate independent participation, surveys were distributed using familiar digital tools (in this case, Microsoft Forms), and the use of accessibility features were encouraged (e.g. Immersive Reader, image-based Likert scale responses etc). Surveys were adapted for younger children to take part – through the provision of group based surveys where children could vote for specific answers and then share narrative comments. Surveys were also complemented by a range of research interviews and focus groups using participatory methods. For example, children were asked to take one of the research team on a tour of their school whilst responding to a series of questions about the role of the school in their education; children were asked to talk about their learning activities in-situ within lessons and group tasks. Each of these methods enabled the children involved to remain within familiar contexts and locations, stimulated by familiar learning tasks and experiences, whilst taking on the role of expert in narrating, explaining and reflecting upon the efficacy of their learning and the role of digital within that landscape. Research coaching and

structured frameworks were provided for all those within the research team in order to guide the questions to ensure research coverage; encourage robust questioning and analysis; and maintain objective triangulation of data between researchers and participants.

2.3 Data Analysis

Thematic analysis was used to analyse data from interviews, focus groups, and open-ended survey questions. This approach, drawing on the guidance set out by Braun & Clarke (2021), involved data familiarisation, identifying patterns and themes within the data, reviewing those themes in order to surface elements of significance, and then collating themes of significance in order to contribute towards a deeper understanding of the dataset. Contributing towards the thematic analysis were a number of specific additional analytical techniques which help to draw meaning out of small-scale datasets. For example, aspects of discourse analysis were used in order to surface embedded meaning within language and communication used by participants in interviews and focus groups. This approach involved identifying the language used to construct and convey meaning specific to the researcher and respondent. For example, Hammersley (1993), reminds us that specialist researchers benefit from an assumed shared meaning in specialist

domains which can be both beneficial in terms of directing attention to salient aspects of data, whilst simultaneously risking familiarisation bias. Thus, to mitigate for this, it is pertinent to utilise elements of discourse analysis that unpack particular forms of embedded meaning such as a focus on dialogic undertones - where meaning accumulates as a result of a developing response or discussion (Tannen, 2015), and intertextuality - where particular meaning emerges from one source only as a result of insight from another source (Hodges, 2015). Furthermore, analysis drew upon a number of related theories which help to elicit meaning from interview, observation and focus group data. For example, Centering Theory (Walker et al., 1998), posits that when we speak, we utilise a number of specific linguistic tools to direct the attention of our audience towards particular embedded meaning. In a school context this is often most apparent with the choice of “I” or “we” when referring to different aspects of policy or practice - conveying embedded meaning about the relationship between the person communicating and the organisation itself (Gordon et al., 1993). These kinds of nuances are critically important as they subtly convey indicators about how a child or adult perceives themselves in relation to the focus of the discussion, the environment around them, the organisation and the wider community – i.e. their identity in the specific moment of data

generation. That specific identity frames the way in which the context can be understood – helping to surface ethical considerations which affect data (e.g. a participant reporting compliance with a policy or cultural norm rather than alignment with its underpinning principles). This more detailed approach to understanding lived experiences of both children and adults in schools is vitally important in order to mitigate for the historical over-dependence on quantitively biased approaches (e.g. reliance on statistics and reductionist approaches to qualitative data), that have dominated education research in the past.

2.4 Ethical considerations

Within this specific research, great consideration was given to the ethical domains highlighted by Stutchbury & Fox (2009), about the inferred consequences and impact on those involved. In particular, ensuring balanced, critical and objective planning, sampling, analysis and representation. This approach ensures that the research enters the domain neither biased for or against particular forms of practice but instead surfaces and articulates the impact of specific practices being implemented on those affected by them. Of note, research undertaken across schools in this context operates in alignment with the principles of the BERA Ethical Guidelines (BERA, 2024), but deviates slightly in relation to some operational processes (e.g. consent for observations was provided centrally rather than per-participant for the 9,700 people involved).

As part of the analysis process, it was important to consider any variance between stakeholder perception - particularly in terms of meaningfully valuing the voice and insights of children themselves (Hart, 1992). When seeking insights from learners, it is helpful to understand some embedded issues in this specific space. For example, research addressing the uses of digital technology in schools often conflates adult perception with children's opinions, resulting in adults who advocate for technology believing children to be similarly advocates, and those who argue for less technology believing children to share their views. These confirmation biases are common and often mask subtle nuances and insights that children can offer - when given the opportunity to do so authentically. This impact study therefore deliberately triangulates insights from children, teachers and leaders, and presents findings only when supported by multiple sources and formats of evidence.

The voice and perceptions of children sit at the heart of this research, and great care was taken to offer children the time and space to share what they were doing, how they were doing it, why they were doing it, and to understand the depth and breadth of their perception and internalisation of their learning experiences. This is best achieved when children are immersed in [classroom]

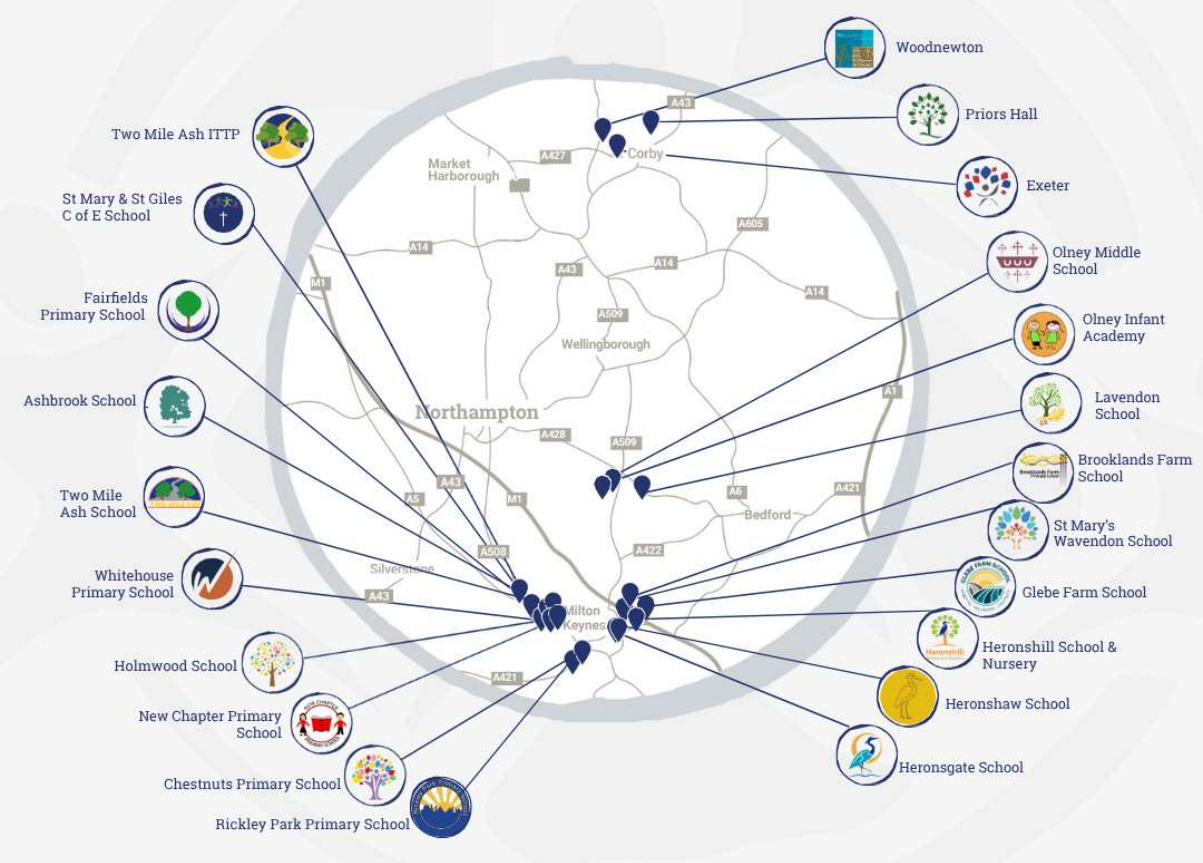
activities, and able to talk in-situ about their experiences in relation to their broader holistic education and wider life. Every child brings a unique set of prior experiences, characteristics and needs into their classroom, and every teacher has a range of children's needs that they seek to meet through their provision (Aubrey-Smith, 2021). Therefore, a detailed understanding of the complexity of children's experiences and internalisation, alongside an empathy for a teacher who seeks to meet a highly diverse range of needs is essential if this research is to surface meaningful insights that inform future school strategic planning.

Safeguarding and data security considerations have been addressed by the anonymisation of all children, teachers, leaders and families. The report refers to children or children's families only by the child's year group rather than name or gender in order to minimise identifiable participants whilst maintaining data integrity. Staff are referred to by role for similar reasons although for some senior and executive roles this means that participants are identifiable. Products are referred to by their colloquial product name not to infer product promotion but in order to maintain data integrity.

3.0 Context

Inspiring Futures through Learning (IFtL) is a forward-thinking multi-academy trust of 20 schools, supporting over 8,500 pupils and 1,200 colleagues. Schools are predominantly primary phase with a mixture of primary, infant and junior schools, and one school is an all-through school providing a contemporary learning environment for children from nursery to Year 11.

Founded in 2016, schools across IFtL are located across Milton Keynes and Corby and include both urban and village schools, all of whom have been judged by Ofsted as Good or Outstanding schools in their most recent inspection.



Across the schools, 22.5% are in receipt of Pupil Premium (PP), 17.5% are registered on the Special Educational Needs and Disabilities (SEND) register (3.2% higher than the national average), and 29.9% speak English as an Additional Language (9.1% higher than the national average).

Each school within the trust has its own particular profile, as summarised in Table 1.

Academy Name	Date joined Trust	Age range	NOR	PP %	SEND %	EAL%	Current Ofsted Rating
Ashbrook	Oct 2019	4-7	168	12.5	20.2	59.5	Good (2024)
Chestnuts	Nov 2016	2-11	392	35.9	26.8	29.3	Good (2025)
Exeter	Jan 2019	2-11	450	41.7	28.8	37.6	Good (2023)
Fairfields	Sep 2017	2-11	593	10.6	9.4	27.3	Good (2022)
Glebe Farm**	Sep 2022	2-16	1172	24.8	14.7	18.9	Outstanding (2025)
Heronsgate	Dec 2024	7-11	329	35	16	30.8	Good (2024)
Heronshaw	Jan 2019	4-7	159	22.4	13.7	27.3	Good (2022)
Heronshill	Dec 2024	2-7	71	8.2	9.6	24.7	Good (2023)
Holmwood	Oct 2019	2-7	191	16.3	27	56.1	Good (2024)
Lavendon	Jan 2024	4-11	162	15.6	15	5	Good (2025)
New Chapter	Dec 2024	4-11	222	42	25.3	23.6	Good (2022)
Olney Infant	Jan 2017	4-7	251	9.2	13.1	4.8	Outstanding (2022)
Olney Middle	Feb 2017	7-11	351	19.6	26.8	6.6	Good (2019)
Priors Hall	Oct 2024	2-11	460	11.3	17.1	34.7	Good (2024)
Rickley Park	Jul 2020	3-11	444	29.3	20.3	34.5	Good (2022)
St Mary and St Giles	Mar 2021	2-11	347	38.3	19.7	22	Good (2024)
St Mary's Wavendon	Dec 2024	3-11	491	29.2	16.7	36.9	Good (2024)
Two Mile Ash	Founder 2016	7-11	651	17.4	17.7	46.7	Outstanding (2024)
Whitehouse	Sep 2016	2-11	673	7.7	18.6	51.9	Good (2024)
Woodnewton	Jan 2019	2-11	760	26.9	27	26.9	Good (2024)

Table 1: Key characteristics for each of the IFtL school, at the time of writing.

** At the time of this research, Glebe Farm School (which opened in 2022 as an all-through school), had welcomed learners in all year groups in the primary phase and in Years 7, 8 and 9 in the secondary phase.

Founded in 2016, Inspiring Futures through Learning (IFtL) originally grew from Two Mile Ash School with its associated Teaching School Alliance, and Two Mile Ash Initial Teacher Training Partnership. IFtL was established with a strong vision to 'Inspire the futures of us all through learning together'. Founding leaders were, and current leaders remain, strongly committed to championing the learning and life chances of all learners – particularly the most vulnerable. The leadership vision is to inspire learning, support the vulnerable, champion equity, and foster a sense of belonging, safety and connection within their communities.

The Trust grew quickly including the opening of three new schools in the growing city of Milton Keynes, and bringing in another multi academy trust of three schools in Corby. A significant element of this journey has been welcoming school communities in need of support, and IFtL has had the privilege of being instrumental in leading two schools out of 'Special Measures' and to 'Good' (Ofsted, 2023).

IFtL opened with its vision and values pointing firmly towards the people, both children and colleagues, in the family of schools. This human-centric vision has been firmly retained throughout the growth and development of the trust. IFtL is committed to, and invests in, the development of colleagues, believing that all colleagues play a significant role in enhancing the life chances and outcomes for learners in the family of schools. Since its establishment, IFtL has adopted a strategically aligned, system-led approach to growth, school improvement, and innovation.

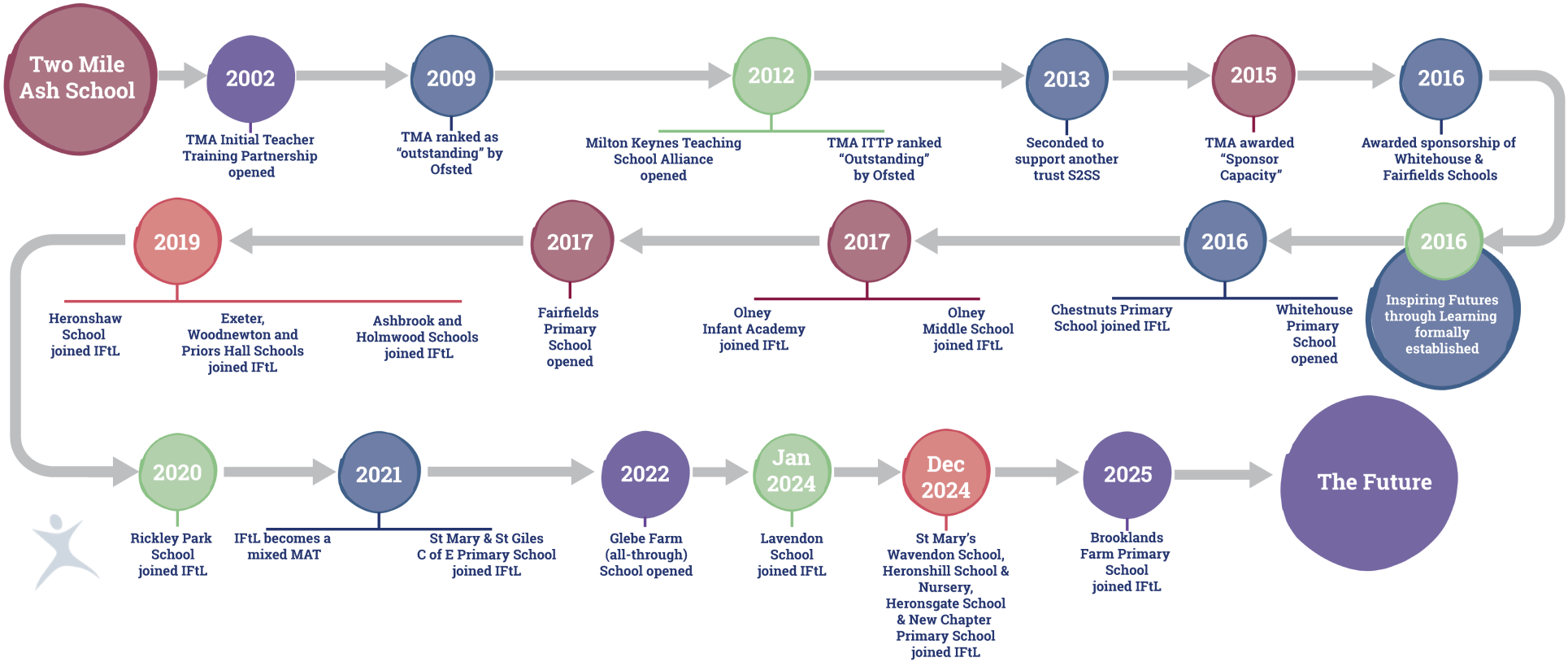


Figure 2: Summary timeline of Inspiring Futures through Learning growth

3.1 Vision

Inspiring Futures through Learning (IFtL), is a cohesive, collaborative Multi Academy Trust (MAT) united by its shared vision:

"To inspire the futures of us all through learning together"

This vision drives the decisions, and actions of the trust and reflects a firm belief in the transformative power of education, and learning, for everyone. Creating learning environments in which learners and teachers flourish is a core commitment across the many levels of leadership, and colleagues are innovative and reflective in searching for the most effective approaches to make that vision a reality.

IFtL employs over twelve-hundred colleagues across its twenty estates. Senior leaders are committed to the people in the organisation and the recognition of the direct correlation of pupil outcomes to quality of teaching (Bush and Glover, 2014), led to the creation of core drivers. These are described below and provide clarity and common language to describe ways of working, learning and collaborating for the benefit of learners.

The drivers are summarised as:

- **Ambitious outcomes for all** - providing accessible, equitable, aspirational opportunities for all children to flourish
- **Rewarding experiences** – engaging, adaptive, evidence-based and rewarding lessons and extra-curricular opportunities that build rich knowledge and cultural capital for life
- **Skilled professionals** – nurturing, training, recruiting, developing, deploying and retaining great professionals throughout their careers and the wider system we serve
- **Expert Governance** – robust and ethical accountability measures, engaging effectively with parents and the wider community
- **Community champions** – working with civic structures to advance education for the public good in the communities we serve and beyond
- **Firm financial and operational foundations** – delivering value for money and prioritising the use of resource to invest in educational quality
- **A safe place to be** – nurturing a safe, secure and engaging environment in which learners, colleagues and communities thrive.

Built from a Teaching School Alliance and School Centred Initial Teacher Training (SCITT), and with National Leaders of Education, IFtL has grown with system leadership at its core and much of its success lies in its collegiate approaches when exploring and thinking about ways to benefit learners across its community.

Intentional partnerships with both individuals and organisations are valued and invested in specifically to provoke thinking, share expertise and create a space for reflection. A bold, collaborative partnership led IFtL to become the first SCITT nationally to pioneer an undergraduate route into teaching which has provided a system led training route for the local area which has no traditional university training route available. IFtL approaches provision in its schools with courage and innovative thinking ensuring that decision making is led by civic responsibility to benefit the children and their families in the communities it serves and beyond.

IFtL champions learning for all and prioritises the professional learning of adults in its culture and vision. Leadership and quality of teaching are prioritised, and it is recognised in literature that leadership is second only to quality of teaching in impact on student learning (Bush, T. and Glover, D. 2014; Coe et al., 2022). Structures and systems are intentionally designed to create system led impact developing expertise, capacity and capability in colleagues to inspire and enable them to lead evidence-based practice in their schools. Focused on the mechanisms of effective professional learning published by the Education Endowment Fund (EEF, 2023), and grounded in IFtL's culture, the Learning & Development (L&D) opportunities build knowledge, motivate colleagues and develop techniques in teaching, learning, professional practice and leadership.

Known as the 'IFtL Varsity', the L&D offer promotes expert led Communities of Practice, seminars and workshops, self-study films and documents and coaching to support all colleagues to develop their knowledge and understanding to influence their practice. The expert led Communities of Practice (as influenced by Lave & Wenger, 1991), represent individuals with a shared interest and area of work who build a shared identity and collective intelligence to create and exchange knowledge (Matsuo and Aihara, 2021). This is associated with leadership development over time and is why the strategy is promoted and invested in by IFtL as part of its self-sustaining system focused on the life chances and outcomes for learners (Smith et al., 2019).

3.2 Digital Origins

In 2022-2023, the IFtL community embarked on a trust wide Diversity, Equity and Inclusion (DEI) project focussing on how school communities could foster a strong sense of belonging. Core to the IFtL DEI strategy was the principle that breaking down barriers to learning for all learners as well as being acutely aware of an individual's protective characteristics or social/economic background was fundamental. The leaders in IFtL were committed to vulnerable learners - and indeed all learners who experience barriers to their learning – and this prompted a reflective and strategic exploration of how school provision could be adapted further to meet the diverse needs of learners and communities.

IFtL's pedagogy was positioned at this time (and remains) around 'The characteristics of effective teaching and learning' which was reflected in a commitment to all learners that their learning offer included opportunities to play and explore, learn actively, create and think critically (DfE, 2023). This philosophy was growing and gaining momentum from the excellent Early Years settings in IFtL and principles associated with Continuous Provision were being explored in Key Stage 1 phases in many schools. Aligned to this was a recognition that learner autonomy and agency were important attributes for successful learning and leaders were seeking ways to sustain the stronger learner identity observed in Early Years settings further into the lived experience of learners in their schools.

During 2020 and 2021, IFtL, like other communities worldwide, experienced first-hand the impact of the Covid 19 pandemic. The impact was far reaching, tragic for many and with visible and invisible consequences. IFtL noted that amongst other things, digital poverty and the digital divide was increasingly evident, and they thought this might be affecting the opportunities and life chances of children in its communities (Centre for Education and Youth, 2023; McInerney, 2020). Leaders reflected on this notion in the context of pre-Covid schooling as well as during the pandemic and they concluded that inequity in digital tools in schools and homes could be contributing to the persistence of some learning barriers that, with digital tools, might be mitigated more efficiently and effectively. For IFtL, this became the next stage of the DEI strategy.

As part of the DEI strategy, and following Covid-19, both curriculum and pedagogy in IFtL were reviewed and the notion of amplifying teaching and learning with digital tools explored through innovative and reflective inquiry. Leaders recognised the potential of digital amplification and began researching a bold, strategic move that would re-imagine teaching and learning for all. This thinking was built on core principles including that learning decisions to suit the most vulnerable, who find it hardest to learn, usually supports all learners – provisions that are necessary for some learners are likely to be beneficial for all learners.

Reflecting that a variety of barriers could be contributing to maintaining the status quo, IFtL strengthened its commitment to addressing these disparities. Under the leadership of CEO Sarah Bennett, a strategic priority was established to enhance the lived experience of learners, reduce barriers to learning and create a more equitable digital landscape for all learners. This commitment was philosophical and practical, shaping the trust's approach to pedagogy, inclusion and technology.

3.3 The Futures Project

A Vision for the Future focused digital project was created, cementing the approach as one based in equity and accessibility for all:

> *"Through investing in immersive learning technologies, IFtL will unlock opportunities for our learners to find out more about our world and increase equity in learning. We will increase accessibility to learning, strengthen engagement for every child and family and provide a wealth of digital skills. We will enable teachers to focus on teaching and learning by streamlining administrative processes to reduce burden on teachers."* (IFtL Futures)

At the same time as this Futures Project's vision was becoming a reality, IFtL was preparing to open a new all-through school in the heart of the Glebe Farm community in Milton Keynes, serving children from the age of three to sixteen. The school was designed with investment in digital infrastructure from the beginning of the planning stage, enabling the creation of contemporary learning environments that could integrate cutting-edge technology with innovative pedagogical design. This investment provided a unique opportunity to embed digital tools meaningfully within the fabric of the school's culture — one that celebrates its people, its community, and its connections – from the very beginning. The convergence of a purpose-built, technologically

advanced school environment with a forward-thinking educational philosophy initiated the development of a truly integrated model. This model combined the strengths of primary pedagogy with secondary subject specialism, enabling authentic curriculum development across all phases. Digital tools were not seen as add-ons but as enablers of curriculum cohesion, supporting a unified approach to teaching and learning while allowing the distinct expertise of each phase and subject to flourish. The result was a school designed not only to meet the needs of its learners today but to improve their life chances well into the future.

Motivation was high amongst IFtL leaders to maximise the opportunity to make a tangible difference to learners through the re-imagining of both pedagogy and curriculum. Therefore, IFtL prepared to initiate the vision and strategy across all estates in the trust - benefitting all learners. At this stage, IFtL leaders undertook an internal review and found that school leaders were inspired and motivated, evidence-led decision making was driving direction, the education teams were ready to design a one-to-one device strategy for learners in Year 2 and above, and the Varsity team (L&D) were poised with systematic structures and leadership to build expertise, capacity and capability in the system at pace to bring the vision to life.

However, school estates (other than Glebe Farm) were not equipped for one-to-one device provision. Existing infrastructure—including cabling and WiFi connectivity—required upgrades or replacement across all sites. To address this, Operations and Finance teams undertook a comprehensive review, and implemented specific necessary improvements. This included infrastructure, hardware and software enhancements, alongside strategic decisions regarding cloud-based services. Microsoft platforms were already embedded across most schools and within the central team, and subsequently became the shared repository for documents, media, and communications (via SharePoint and Teams). Guided by BESA (2023), a strategic decision to work within a single tenancy began, securing a unified, cloud-based digital platform to enhance communication, collaboration, and digital service management across the trust. This work took place ‘behind the scenes’ and represented a significant investment that was integral to the subsequent success of the project at scale.

3.4 Culturally informed decision making

A significant decision that needed to be made was to identify which device and core software package would be used across the IFtL estate and community. In preparation, IFtL leaders reflected on the trust's culture and vision carefully in order to inform this critical choice.

IFtL's historical approaches and expertise in Early Years and Key Stage 1, meant that retaining the learner centred curriculum based on the 'Characteristics of Effective Learning (DfE, 2023) was important both strategically and emotionally for colleagues. The Characteristics of Effective Learning are published by the DFE and are:

- **Playing and exploring** – children investigate and experience things, and 'have a go',
- **Active learning** – children concentrate and keep on trying if they encounter difficulties and enjoy achievements,
- **Creating and thinking critically** – children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

These characteristics match the values many IFtL leaders hold about the provision and 'offer' for learners in their schools. While leaders were committed, prepared and inspired for the change towards a digitally infused curriculum, they also wanted to retain some stability and familiarity, and a balance was sought.

Leaders knew that colleagues needed to ensure that strong teaching continued as changes were embraced and new strategies enabled. Alongside this, there was a need to deconstruct current practices in order to create space to enable change. However, it was seen as vital that this process would not radically destabilise the existing stable and successful schools and communities. Therefore, at the beginning of the research phase of the project, leaders sought to surface colleagues' values and beliefs about pedagogy to inform approaches and areas for exploration.

As part of a series of workshops, teaching and leadership staff were asked about their pedagogical values and beliefs, and the extent to which they felt able to articulate these. Across the trust, staff responses highlighted a high level of confidence in talking about pedagogical practices (e.g. classroom actions), followed by a good level of confidence in describing pedagogical strategies (e.g. teaching approaches, learning strategies, classroom management strategies), and then slightly lower confidence in articulating underpinning pedagogical beliefs (the philosophical rationale about why we view education, teachers, children and knowledge in the way that we do). These trends are typical for what is seen both nationally and internationally, reflecting a workforce which is dominated by an accountability model focused on externalised indicators of impact.

Across schools nationally and internationally, it is common for a staff body to represent a range of different pedagogical beliefs (Aubrey-Smith, 2025). This reflects diverse ontologies about how the world is organised – with those who see themselves as knowledge specialists being more likely to align with individually oriented theories of pedagogy, and those who see themselves as creative more likely to align with socially oriented theories of pedagogy (Aubrey-Smith & Twining, 2024). Across a school body where specialists from a wide range of curriculum subject domains permeate both classrooms and leadership roles, these belief systems become embodied through different pedagogical stances and therefore create different lenses through which classroom practice is viewed.

In 2025, staff across IFtL undertook a series of activities in order to identify their individual alignment with one of four parallel views on pedagogy, broken down into each of the four domains of pedagogy (see Aubrey-Smith & Twining, 2024 for the definitions of each of these points). Figure 3 sets out the findings, reflecting a typical range of views and beliefs are represented in comparison to similar datasets collated nationally (Aubrey-Smith, 2025).

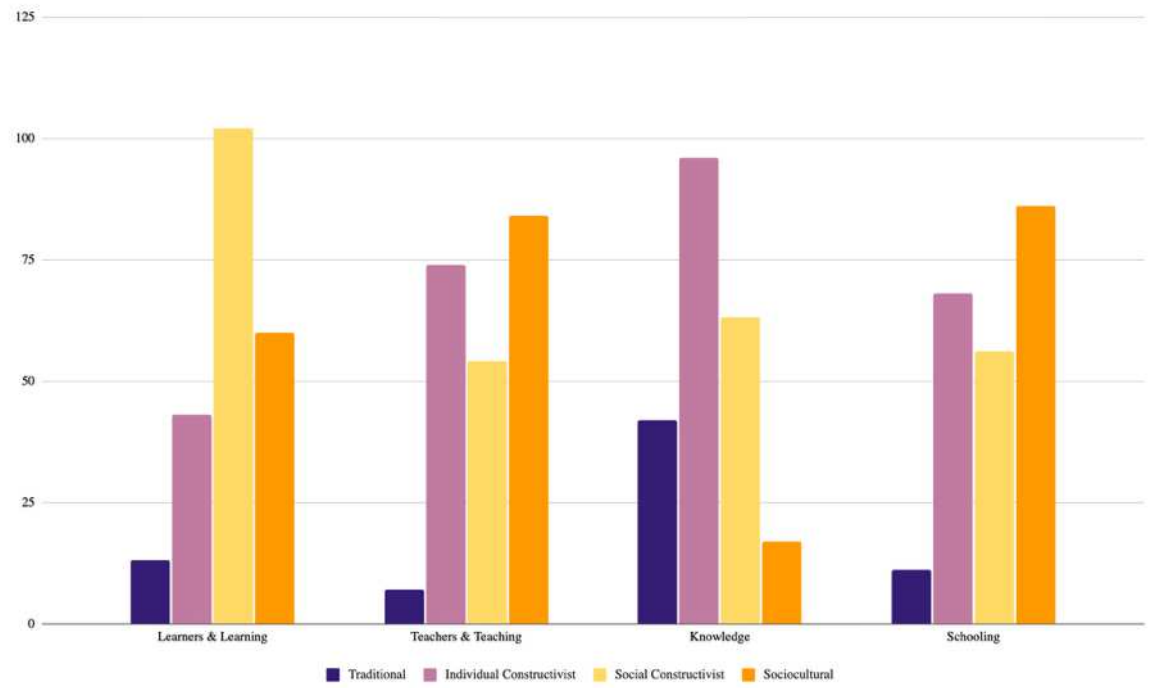


Figure 3: Number of IFtL educators aligning with each of the 4 main theories of pedagogy, for each of the 4 domains of pedagogy.

However, whilst an individual educator may hold a particular set of pedagogical beliefs, they work within a department, school and trust which (as seen in Figure 3), represents a diverse

range of such views. The relationship between an individual's pedagogical beliefs and trends seen across their specific school is therefore of particular importance in terms of holding a shared vision and values, and sharing meaning when using specific pedagogically related vocabulary (e.g. 'what it means to teach', or 'supporting learners'). Figure 4 demonstrates the proportions of schools across IFtL where there was a dominant view of pedagogy (i.e. the majority of staff aligned towards a particular view). Again, the distribution is broadly representative of trends seen nationally (ibid). For example, 47% of the IfTL schools have a dominant view across staff which aligns with Individual Constructivism.

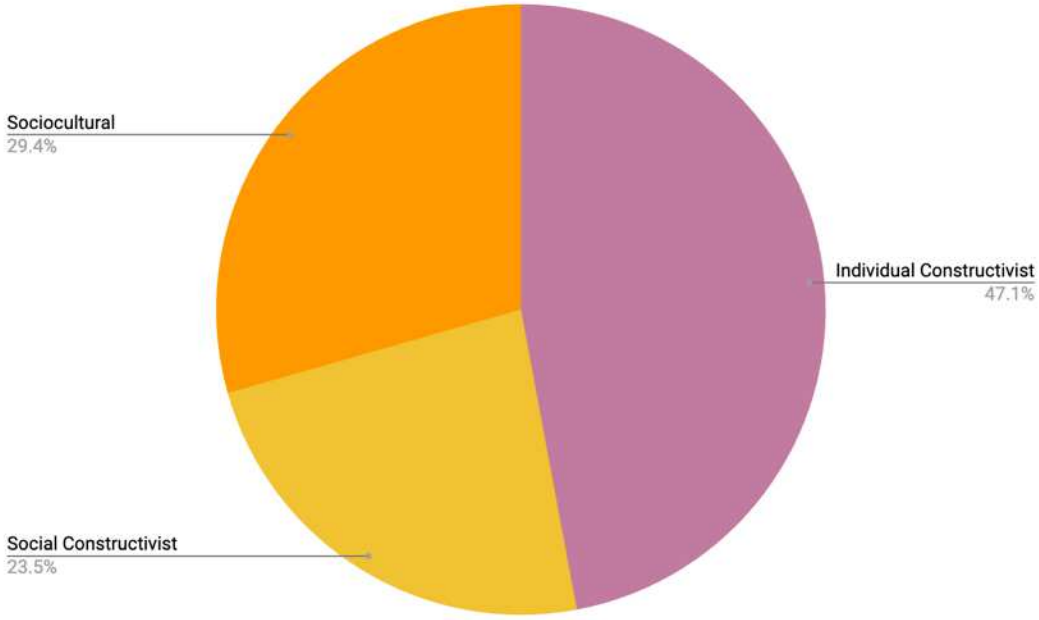


Figure 4: Proportion of IFtL's 20 schools where a majority of teaching and leadership staff align with a particular theory of pedagogy

The data described above sets out the self-reported beliefs that individual staff, and groups of staff hold. However, it is important to be aware that these are ideological – i.e. educator views about what 'should' happen. As a result of education being a human endeavour, aspiration and reality do not always neatly align, and therefore as a consequence, it is helpful to also surface insights about what existing practices (one form of reality) look like – mapped to the same pedagogical descriptors.

Therefore, pedagogical strategies that had been adopted across schools were also examined and analysed in order to identify (a) which pedagogical beliefs they embodied, and (b) how the pedagogical strategies in place aligned with the pedagogical beliefs articulated by staff across the trust.

Analysis of pedagogical strategies embedded in IFtL practice identified that,

- 57% of strategies in use had emerged from values associated with Individual Constructivism (e.g. retrieval practice)
- 32% of strategies in use had emerged from values associated with Traditional behaviourism (e.g. cold calling)
- 11% of strategies in use had emerged from values associated with Social Constructivism (e.g. talk tactics)

Whilst mapping individual pedagogical beliefs and the pedagogical strategies used by individual teachers was not completed at this stage, it is possible to see that there are some misalignments between dominant pedagogical belief systems permeating the trust, and the use of specific pedagogical strategies which emerge from different pedagogical belief systems. In other words, what educators believe about pedagogy may not necessarily be aligned with what educators are doing in practice. (Note: in the contemporary landscape this is common in schools, see Aubrey-Smith & Twining, 2024). Figure 3 shows a summary of this data across IFtL schools.

	Proportion of IFtL schools with dominant pedagogical stance	Views about Learners & Learning	Views about Teachers & Teaching	Views about origins of Knowledge	Views about the Purpose of Schooling	Classroom Strategies embedded in IFtL schools
Traditional	**0%**	6%	3%	19%	5%	**32%**
Individual Constructivist	47%	20%	34%	44%	31%	57%
Social Constructivist	24%	47%	25%	29%	25%	11%
Sociocultural	**29%**	28%	38%	8%	39%	**0%**

Table 2: Overview of IFtL staff pedagogical belief alignment with the 4 dominant theories of pedagogy, alongside common IFtL classroom strategies - as at July-September 2024

Workshops with school leaders explored the many complexities embedded within this space. For example, school leaders spent time analysing the trends seen in their own schools across role types (e.g. variance between the pedagogical beliefs of teaching assistants, teachers, middle leaders and senior leaders), across subjects and phases, and across the 4 domains of pedagogy.

Most senior leaders identified a general alignment among staff regarding pedagogical approaches and their school ethos. However, some insights highlighted a disparity between stated beliefs (e.g., social constructivism ranking high) and actual classroom practices (e.g., a move towards individual/traditional approaches, especially as children progress through key stages). In addition, there was recognition of a "mixed bag" of pedagogies – the pedagogical equivalent of believing that the earth is sometimes flat and sometimes 3-dimensional.

Current national teacher training requirements tend not to prioritise educators developing a theoretical understanding about different theories of structural support for learning (i.e. pedagogy), instead preferring to offer recommended models (usually based on traditional behaviourist or individual constructivist theories which tend to be the preserve of national policy shapers). Broader educational vocabulary then tends to be borrowed to (incorrectly) infer generalisability (e.g. the use of terms such as scaffolding, misconceptions, instruction, collaboration – which are each tied to specific theories of pedagogy rather than generic terms).

What was clear across IFtL was the dominance of constructivist approaches (both individual and socially oriented) which is reflective of a broader national trend (Aubrey-Smith, 2025). Notably, both teachers and leaders spoke of a strong desire to better understand how pedagogical beliefs permeate practice, in order to bring greater precision and impact to children's experiences and outcomes, staff development and community cohesion – in other words, pedagogical alignment.

For IFtL, developing an understanding of pedagogical alignment represented a metaphorical line in the journey of the Futures project. These insights highlighted how a pedagogical (rather than curriculum or digital package based approach) was paramount in achieving the underpinning aims of bringing equity, dignity, and inclusion for all children across IFtL. The Futures project needed to, and prioritised, a focus on clarity of pedagogical intent.

Leadership at IFtL therefore embarked upon a journey of enabling all staff to learn more about their own pedagogical beliefs and values, then using these insights to identify how digital tools would most appropriately support, extend and enhance specific pedagogical intentions – leading towards contemporary solutions relevant to contemporary learners and challenges.

3.5 Building on pedagogical insights

Reflection and monitoring activities conducted by leaders revealed that digital tool integration was already evident and embedded in many classrooms. In some cases, this integration was intentional and clearly articulated. In others, it occurred more by chance, with the underlying rationale less securely expressed. Close observation identified that the intentionality of digital tool use mirrored a teacher's clarity around their pedagogical intention – highlighting the importance of making a distinction between practice (practical actions – the 'what' and the 'how') and purpose (the 'why').

Leaders expressed a desire to deepen understanding of how digital tools could and should be used with sharper pedagogical clarity, so that more colleagues could be supported to understand and articulate their thinking — thereby inspiring and motivating their teams. Agentic decision making, rather than reliance on standardised recipes for success, was central to this commitment: the use of digital tools must be to amplify learning within the specific context, curriculum, and moment in which the learner engages, often requiring agile decision making by both teacher and learner.

At this stage, a shared and clear pedagogical intent which supported the moral imperative to bring greater access, dignity and equity to IFtL classrooms was the provisioning of on-demand access to teaching materials and learning resources for all children. IFtL explored the many potential tools which could offer this provisioning, identifying Showbie[4] as both pedagogically and operationally aligned. Showbie is a digital tool that provides a workspace for teachers and learners in which learning and resources can be catalogued and learning and feedback captured through multi-media tools. Showbie colleagues provided training to IFtL leaders demonstrating how the software linked to their 'DNA of learning' (Chohan, 2024). This training made explicit links illustrating how the software supported direct instruction, independent practice, feedback and assessment and provided a framework some colleagues found helpful to organise their thoughts through the workflow of a typical lesson.

At this stage, IFtL were able to set out a very clear structure (see Figure 5) that made explicit connections between the layers of pedagogical alignment (Aubrey-Smith & Twining, 2024) and the DNA of learning (Chohan, 2024). This structure ensured that leaders were building classroom strategies and practice upon a firm evidence base of educational theory, whilst simultaneously

[4] www.showbie.com

communicating this to teaching staff in a way that was scalable, time-efficient, and accessible.

DNA of Learning – direct Instruction			
Why **Pedagogical Beliefs**	**How** **Pedagogical tools**	**How** **Pedagogical Approaches**	**What** **Pedagogical Practice**
Children learn best when an expert shows them how to do something Gathering ideas collectively is social and means we can learn collectively Checking for understanding is important to share the modelling Recording the modelling means it is available later	Digital only shared here - there are many more Screen capture Freeform Recording / visualising from iPad on desk Keynote Live Explain Everything Quick quiz in Socrative Socrative quizzes Apple TV. Moving around mobile ipad	Direct Instruction Modelling Questioning Recall Prior knowledge Checking for understanding	Shared writing Modelled writing What a good one looks like Demonstrating Quick low stakes quizzes Idea generation and gathering Moving around classroom

Figure 5: An example of the relationship between pedagogical and digital thinking at IFtL

> *"This stage of the project marked a seminal moment. It subtly recalibrated the trajectory—much like a ship adjusting its course— to truly focus on the experience of learners and of learning in IFtL classrooms. This shift prompted colleagues to reconnect their understanding of digital tools with their deeper beliefs and professional knowledge about effective teaching practice"*
>
> (IFtL Executive Leader)

The recalibration process also ensured that all teaching staff had clear direction about the pedagogical intentions and strategies that IFtL leaders had identified as most appropriate to the trust vision and community – with 95% of senior and middle leaders consequently reporting that they had 'clear expectations about what digital tools and apps should and should not be used in classrooms, and why' (Survey, April 2025).

3.6 Developing a Digital Package

As part of the development of digital provisioning, IFtL leaders sought contributions from stakeholders across the trust – incorporating perspectives from all levels of teaching and leadership. It became clear that colleagues wanted to explore contemporary approaches to transform learning experiences so that learners could express what they were thinking, feeling and learning in contemporary ways that might suit learners and teachers better than traditional approaches. These pedagogical intentions led to operational criteria for the device and core software package. For example, in order to facilitate high quality learning capture, the technical specification required an excellent camera both forward and rear facing that was straightforward to use; intuitive workflows to enable learning capacity to be increased and deployed to learning not to remembering how to do something on the device; long battery life so that learning was led by the learner not the need for an electrical supply; secure with adequate filtering and monitoring to minimise safeguarding risks to learners; mobile and robust devices so that the learning could transcend classroom locations and move into forest school, science lab or at home; and easily held stable in the hands of both the youngest and the oldest learners.

The decision was not solely a hardware-based one; leaders consulted widely to develop a core digital package for learners that would amplify learning through a pedagogical lens and integrate seamlessly with existing curriculum, classroom cultures, and safeguarding practices. Leaders were prudent in ensuring that the digital package would not limit developments at policy or operational levels. As this package evolved, a combination of tools were selected to form an evidence-based digital core which would support a constructivist pedagogical approach:

- iPads for both teachers and learners to embed consistency (reducing cognitive load)
- Apple Classroom to support real-time monitoring of learning and digital behaviour
- Showbie to catalogue learning tools and outcomes in a digital environment
- Socrative (now Showbie Assessment) as an integrated quizzing tool
- Lightspeed to provide high-quality filtering and monitoring.

This package was designed for distribution to all learners in Year 2 and above.

Each iPad was housed in a robust case designed to encourage ergonomic use, held securely in both hands for camera-based activities and positioned at an angle for tabletop work. The footprint of the device was relatively small making it possible to retain the ethos that this was 'a' tool to amplify learning and not 'the' tool. This philosophy supported a culture of hybrid learning that promoted writing, pencils and paper alongside iPads blending traditional and contemporary tools as appropriate for the learner's lived experience. Headphones were made available, and on-screen digital keyboards were used as standard, with separate physical keyboards provided for learners requiring access arrangements. Leaders committed to reviewing this provision as secondary cohorts at Glebe Farm expanded, recognising that curriculum demands may necessitate broader access to physical keyboards.

These devices were intended to replace existing iPad trolleys and static IT suites across all schools over the following one to two years (2022-2024). This transition would release physical space within schools, enabling the development of internal additional provisions aligned with the trust's evolving SEND strategy. In this way, the deployment of iPads not only supported equitable access to learning but also facilitated bespoke provision for learners with complex needs — repurposing spaces previously occupied by non-mobile computing infrastructure.

3.7 Pilots and Scaling

Any large-scale initiative of this nature is inherently accompanied by a range of risks, including financial challenges and the potential to disrupt an established educational culture across the trust's schools. Nevertheless, the anticipated benefits were considerable, and senior leaders at IFtL recognised that the project could serve as a catalyst for deep pedagogical reflection, ultimately enhancing the learning experience for all stakeholders.

During the planning phase, IFtL leaders considered the possibility of implementing a pilot school to pioneer the approach, facilitate initial learning, and inform subsequent deployment. However, following a process of research, reflection, and strategic visioning, an evidence-based decision was reached not to proceed with a pilot. This conclusion was grounded in the recognition that a pilot in one context might progress very differently from the project at scale due to differing colleague readiness, school culture and contexts and different learners (Durlak and DuPre, 2008). Furthermore, it would not accurately replicate the conditions or scale of full deployment and would benefit disproportionately from central team expertise and resources — support that could not be sustained at scale. Furthermore, the progress of a pilot in a single context would likely diverge from that of a trust-wide rollout, owing to variations in colleague readiness, school culture, and learner characteristics.

Consequently, in this project, a pilot would fail to establish the system-wide structures for knowledge creation and exchange that are essential for successful and sustainable implementation over time and at scale. A further consideration was the long-term sustainability and impact of the project; it was unclear how long a pilot would need to run to yield valid longitudinal data to inform future expansion. IFtL leaders were keen to avoid investing resource in a pilot project that risked generating insufficiently robust information to support a scaled-up Futures Focused project and they were concerned that 'pilot fatigue' might creep in and reduce motivation in leaders. IFtL leadership were clear about the vision, justification and planning for this strategic plan, and therefore, after careful deliberation, and with the support of partners such as Apple Education UK and Sync, the IFtL leadership team resolved to proceed with a relatively rapid, trust-wide deployment over 1 year.

This decision paved the way for a system-wide project, engaging a broad range of stakeholders, and shaping collaboration and learning across multiple teams. Collaboration has long been a cornerstone of IFtL, and deploying the initiative at scale enabled the creation of an extensive network in which learning could evolve in context-specific ways. Within such a system, both individual approaches and collective 'best bets' were amplified and enhanced, fostering continuous improvement and innovation. Committed to distributed leadership and the development of leaders across the IFtL system, a structure based on school-based champions was designed. At the core of this structure was systematic, evidence-based learning and development for colleagues across schools and roles.

The groundwork for digital transformation was established. At this point, the Learning & Development (L&D) focus shifted to the IT teams as they learnt to set up and manage devices through the selected MDM (Jamf). The Apple Education UK team and Sync were central partners in the preparation for deployment alongside Lightspeed which was the chosen filtering and monitoring solution.

In summer 2022, all Head Teachers received iPad Pros, enabling trust leaders to initiate professional learning and begin exploring the potential for amplifying learning through these devices. The initial deployment of learner iPads took place at Glebe Farm as the school opened in September 2022, with subsequent rollouts across other schools beginning in February 2023 and completing by July 2023. Within nine months, over 6,500 devices had been distributed throughout the trust. This rapid, trust-wide deployment - undertaken without a preliminary pilot - was a deliberate and strategic decision by IFtL leaders, reflecting their commitment to system-wide innovation and equitable access to technology.

The decision not to pilot has been a wise investment of finance, time, energy and focus, due to the efficiencies of a whole-trust initiative, and the impact consequently seen on both learners and

educators across IFtL schools – as set out later in this report.

Decisions about the use of digital tools to support, extend or enhance teaching and learning (and equally, where not to use digital tools), are complex and require consideration of both trust and school intentions, subject and domain specific context, learner characteristics and needs, and the specific classroom activity (with its underlying pedagogical intention). Therefore, there is not a one-size-fits-all approach that would be suitable nor appropriate across the 20 diverse schools within IFtL – each with its own unique group of staff and students. However, there are many commonalities, and it is entirely appropriate for a core digital package to be consistent – not least to minimise cognitive load for staff and students when moving between lessons, subjects, year groups, teachers and interventions.

As at 2025, the IFtL digital package - supported both through deployment and training - can be summarised as:

- 1:1 iPads for all children, teachers and leaders
- Accessibility features (within iPads) as standard
- Apple native apps and tools (keynote, safari, pages)
- Microsoft ecosystem (Word, Excel, PowerPoint, Immersive Reader)
- Showbie
- Socrative (now Showbie Assessment)
- Videos (to augment human teaching, and for evidencing learning)
- Learning by Questions
- Freeform
- White Rose Maths / 1 minute Maths
- Times Tables Rock Stars

3.8 Staff Development

To support the trust-wide rollout of 1:1 devices to support, extend and enhance teaching and learning, a range of approaches to upskilling staff and students took place. Enhanced skills and specific knowledge were required across the system, necessitating a systematic approach that addressed digital skill development in context of clear pedagogical intentions and classroom contexts.

IFtL appointed leaders (known as Future Ambassadors) in every school. Future Ambassadors formed what Lave & Wenger (1991) refer to as a Community of Practice - raising the profile of the

work underway and investing in targeted discussion and development time to help all staff consider the evolution of practice.

Teacher devices were deployed in advance of pupil devices, ensuring initial tool training had taken place so that teachers could then curate learning opportunities for children and shape their experiences with the devices with increased confidence. The Future Ambassadors quickly became central to the success of the project, and the Apple Learning Coach programme (Apple, 2025), was subsequently adopted, developing coaching skills within the context of Apple native apps and fostering both digital and leadership knowledge among staff.

The established link between pedagogical knowledge and teaching competence, and, subsequently, to motivation and agency in teachers meant that leaders designed implementation and L&D through a pedagogical lens, drawing digital tools into pedagogical approaches and focussing on the lived experience of learners in the learning context. Leaders believed that this approach would maintain the educational ethos and culture of the schools and trust, while also creating space for innovative possibilities to emerge and integrate with existing educational culture. The significant shift in teaching and learning through digital tool integration required all classroom practitioners to possess the knowledge and agency necessary to make appropriate decisions at the point of learning, for the benefit of learners, by noticing and responding to the lived experiences of those learners. Achieving this effectively with enhanced digital tools, such as the one-to-one iPads and core apps, necessitated explicit knowledge in both digital and pedagogical domains to maximise impact (Biesta et al., 2015). The professional learning curriculum for colleagues intentionally integrated digital knowledge and skills with pedagogical knowledge and decision-making, ensuring that decisions about learning and learners remained robust and could be articulated with increasing precision.

IFtL's approach was successful, and digital knowledge capital increased across the system. Colleagues and learners in all phases established digital workflows within the curriculum and explored possibilities and potential within learning experiences, hardware and software. Recognising the importance of keeping colleagues united during the implementation of change (EEF, 2019), variations of the training were provided for Head Teachers, SEND leaders, Maths Leaders, and Teaching and Learning Leaders, ensuring that colleagues with diverse perspectives could work collaboratively to create a strong system with trust-wide development. This created clarity and a cohesive language, facilitating swift and accurate communication within school leadership teams about the project. The shared language and expectations established a framework of explicit knowledge and minimum standards known as the 'IFtL Teacher Passport'. This explicit knowledge empowered school leadership teams to embed training, and prevented fragmentation of the trust-wide vision in its operationalisation (Philipson and Kjellstrom, 2020). It

enabled leaders to provide feedback, affirm and reinforce practice in schools, thus building momentum, celebrating the positive developments and utilising impactful mechanisms for successful L&D (EEF, 2021).

3.9 Overcoming Obstacles

As with any change to practice, the embedding of new ways of working happens only once a critical mass of those involved becomes normalised (Brighouse & Waters, 2021). In a classroom context, this applies to both adults (teachers, teaching assistants, intervention leads), and children. More broadly in a school this also includes leaders at all levels, alongside support staff and professional services. The development phase whereby children and adults learn alongside each other as they each become more familiar with new tools, new norms and new routine ways of working is important to plan and support strategically. Therefore, classrooms developed a range of models of student expertise whereby children explicitly learned new digital skills within the curriculum and then supported each other with low level technical troubleshooting as they collectively began to use these skills in application. This created a critical mass of knowledge and skill which reduced the overall dependency upon teacher capacity, and importantly, ensured that classroom flow, pace and focus remained on the pedagogical intent rather than becoming unduly disrupted by low level technical troubleshooting. Over time, as more children and staff became familiar with common issues, time efficient solutions which minimised disruption to learning or teaching were put into place.

During the initial stages of deployment and adoption, teachers and learners encountered a range of similar obstacles. Many of these early issues were technical in nature, and targeted knowledge and skills-based training for the Future Ambassadors proved critical in enabling schools to resolve problems independently. Short training videos and practical guides formed a significant element of this support package.

Common challenges included learners forgetting passwords and so interim password lists were therefore maintained while children developed the ability to manage them securely. This linked to the safeguarding curriculum and age-appropriate online safety expectations and an understanding of password management. Furthermore, on occasions, the profiles for what was available at different times of the day would make some applications appear unavailable. This was solved by training all teachers on the Jamf student app where students could initiate a refresh and the applications would be visible again. Other issues arose when devices were not charged at the start of the day. Schools worked closely and sensitively with parents to address this, and charging towers were introduced to minimise disruption to learning when charging was necessary.

More complex problems included devices being locked due to forgotten passwords or accidental changes within settings. The introduction of a 'magic stick' which was a tool enabling a member of the school team to reset devices onsite, was instrumental in removing this barrier and reducing downtime. While the iPads are robust devices, occasional physical faults or screen damage occurred and a centralised, automated system for repairs including training for those colleagues managing them was important to keep communication clear and expectations managed. The provision of a 'spare device' in every school meant devices could be exchanged through a swapping process managed by the central team so learners were not without devices for any length of time.

Further challenges related to the configuration and structure of software. The swift identification of a best-practice setup, particularly for platforms such as Showbie, significantly reduced issues related to permissions and learner navigation. This standardisation of core structures across schools also enabled the central team to troubleshoot and 'unblock' challenges remotely, ensuring a more streamlined and consistent experience for staff and learners.

3.10 Digital Skills Progression

Consideration about which digital skills children needed to develop – in which order, and over what period of time – became increasingly important. For teachers to be able to reliably use the new tools available to their classes, they needed to have confidence that the practical underpinning skills were in place already.

In the same way that a child needs to learn the mechanics of doing up a zip, and then embed that into everyday practice, before they can benefit from a coat keeping them warm, so too does a child need to learn the mechanics of using accessibility features competently and confidently before they can benefit from learning materials becoming more accessible.

Progression too, was critically important – ensuring that as children moved through the academic year and then through the year groups, they would incrementally build up their digital skillset, allowing them to become more informed, agentive, independent learners – both within school and beyond.

Therefore, the 'IFtL Futures Curriculum' was designed - developed to provide a scope and progression of foundational knowledge needed to use the digital tools independently and fluently to amplify learning. The Futures Curriculum is progressive and incremental, building knowledge for teachers and learners. Reflecting its role in supporting contemporary and pathfinding ways of working, it is also iterative in nature and leaders are committed to review, refresh and update it as

learner knowledge and skills improve and aspiration and ambition are raised across IFtL. The progression documents were supported by a range of resources and training for teachers which were used across schools in a wide range of L&D contexts.

3.11 Plan, Do, Review

Knowing that the digital knowledge and skill base was strengthening meant that the IFtL Futures leadership team could further strengthen clarity within IFtL's chosen pedagogical approaches. Fresh clarity was articulated through a leadership away day in partnership with Apple, setting out a simple, yet powerful summary statement clarifying the potential for IFtL's digital package;

> ***Digital tools: enabling, empowering, engaging and enriching every learner's lived experience***

In other words, if a digital tool is not using one of these verbs to tangibly amplify learning, then review and reflection is likely to be needed to understand whether it is the pedagogy or the tool that needs to change.

IFtL leaders were ready to challenge each other, reflect and explore inside their own and each other's classrooms to understand more deeply about the impact of the digital tools on the lived experiences of their learners. This imperative initiated the launch of a 12-month research study, utilising a close to practice research approach. This phase moved beyond pedagogical intentions (i.e. leader and teacher aspirations and plans), to examine how children were experiencing and internalising classroom practice – aiming to codify efficacy and impact, and then to convert this into a practical handbook which would support, embed and sustain further staff and strategic development.

The output of this research can be seen through two strands:

- **Strand 1:** Creation of 'Inspiring Pedagogy, Inspiring Futures' – providing a pedagogical handbook which sets out IFtL's Pedagogical Beliefs, Intentions and consequent evidence informed Pedagogical Strategies for classroom practice (IFtL, 2025)
- **Strand 2:** An independent impact study, detailing broader findings (this document).

> *"The work is by no means done. We are adopting a graduated approach of assess, plan, do, review and each step forwards reveals a new horizon, an adjusted aspiration and a renewed*

motivation to climb the next step up the mountain of learning about learning, teaching, knowledge and digital tools". IFtL Executive Leader

IFtL colleagues recognise that no person or organisation has a model that will work for everyone, but that by working coherently together, those who are committed to a pedagogy-first approach to the use of digital tools are able to offer today's learners a more contemporary schooling experience.

IFtL remains committed to learning through strong partnerships and further research, challenging reflection and a learner centred approach. Furthermore, IFtL remains committed to a learner first mindset, to the development of all staff, and to contributing to wider sector debate about the role of digital tools in the education of our young people nationwide

4.0 Key findings

A range of evidence was seen through this study which demonstrated that the strategic decision making about the deployment of digital tools to support, extend and enhance learning, has been highly effective for both individual learners, and at scale across a diverse estate of schools.

At high level, evidence across observations, interviews and focus groups, surveys and learning walks consistently demonstrated that digital use was embedded as a now-normal way of working – nearly always exemplifying purposeful, thoughtful, well managed, beneficial and appropriate use specific to pedagogical intentions in place in any given subject, year group, classroom or school across IFtL.

There were a number of particularly notable findings which have been set out below in detail.

- Headline performance measures
- Perspectives and perceptions from children, teaching staff and leaders
- Digital skills and behaviours
- The central role of accessibility
- Perceptions about digital exposure
- Pace and productivity
- The changing role of the teacher
- Deliberate planning for autonomy
- Removing text-based barriers
- Rewinding the teacher
- Supporting and scaffolding talk
- Learner voice
- Real-time, whole-class, formative assessment
- Digitally supported wellbeing
- Capacity for learning – and the use of time
- Paper versus digital – cost implications

4.1 Headline performance measures

Headline findings across this Inspiring Futures through Learning schools include an 8% increase in the number of children achieving age related expectations across Reading, Writing and Maths since the introduction of 1:1 iPad provision[5]. This rapid increase in attainment outcomes contrasts with a relatively static national average (see Figure 6). Put simply, by attending IFtL schools, approximately 33 more children are achieving age related expectations in core subjects each year than if their attendance was in line with the national average.

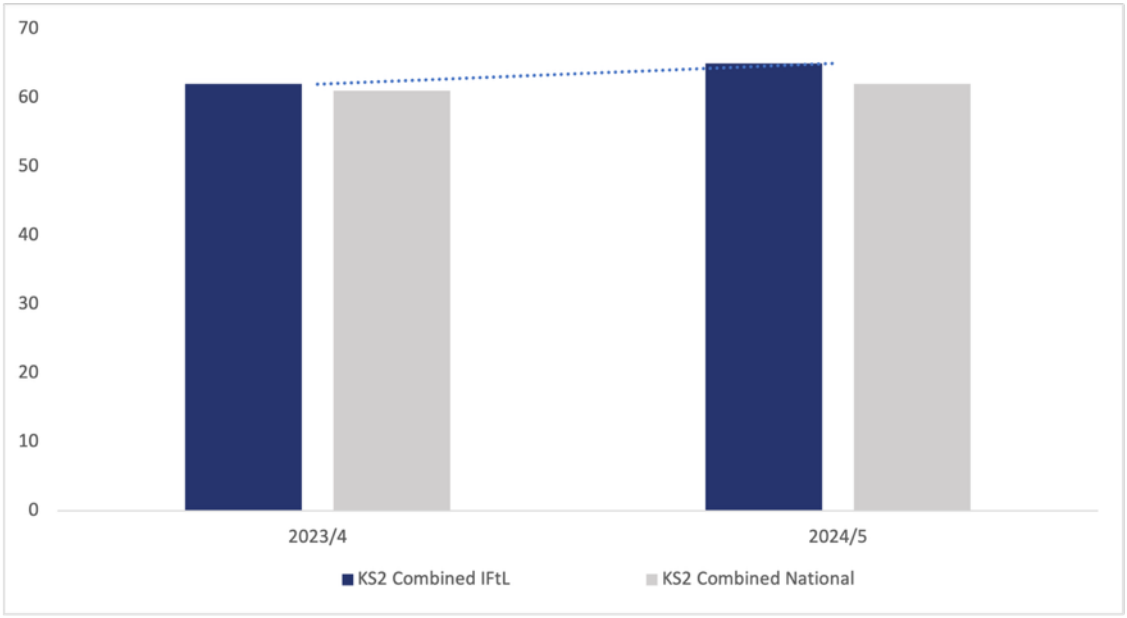


Figure 6: Number of children (shown as % of NoR), achieving expected standards in Reading, Writing and Maths Combined at the end of Key Stage 2, since the introduction of 1:1 iPad provision – compared to national averages over the same period.

There are particular groups that have been most impacted – particularly children categorised as disadvantaged. For example, across IFtL, in 2025, 145 more disadvantaged children in Year 6 achieved age-related expectations in reading, writing and maths combined, than the equivalent group in 2023 – a 6% increase. For comparative purposes, in the same period, the national average increased by 5%. This suggests that if IFtL's approach were to be replicated across the country, an additional 4,983 children would reach age related expectations in Year 6.

[5] Based on end of Key Stage 2 data, and 1,157 children in Year 6

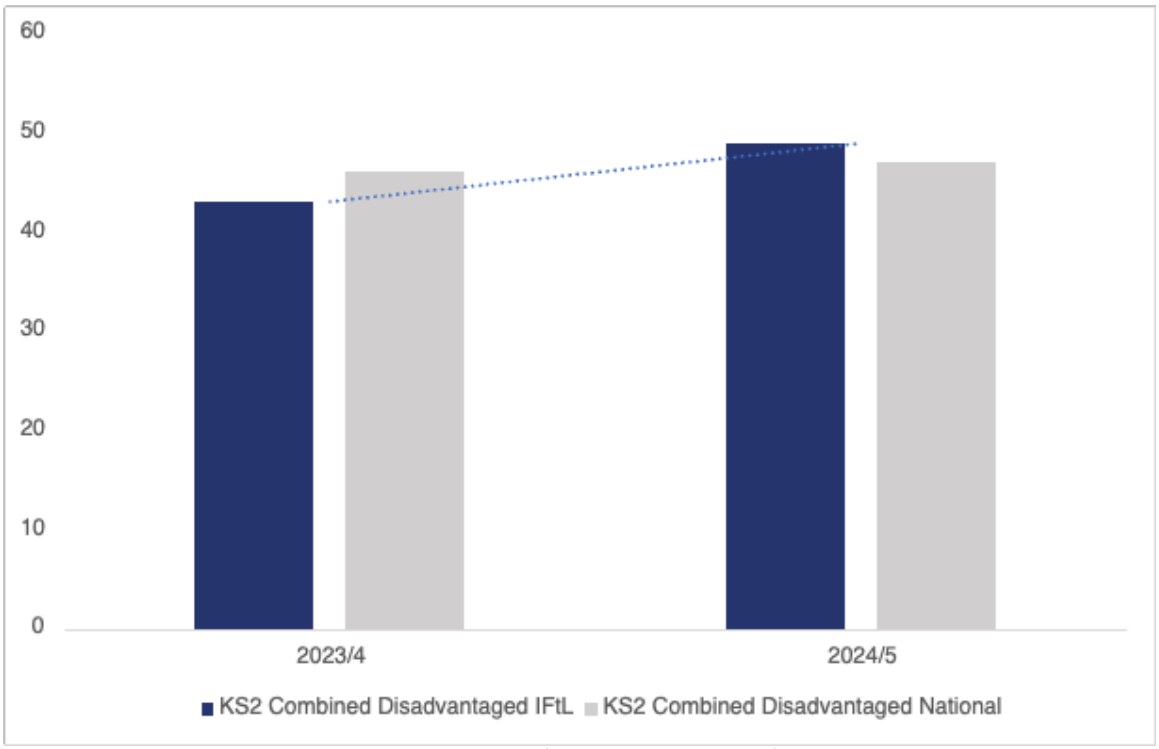


Figure 7: Number of disadvantaged children (shown in % of NoR) achieving expected standards in Reading, Writing and Maths Combined at the end of Key Stage 2 since the introduction of 1:1 iPad provision

The role of digital provision across IFtL classrooms is part of a sophisticated tapestry of support for both learners and teachers. It would be too simplistic to claim that the use of 1:1 iPad provision or digital tools is directly responsible for the increased outcomes set out above. No single resource, tool, or even a teacher can be solely responsible or attributable for the positive or negative impact of at-scale change. Correlation is not the same as causation. Any intervention or strategy in an educational setting must be conceptualised as part of the broader context and tapestry of influences that it sits within. It is perhaps therefore more appropriate to see the role of digital tools as very explicitly supporting, extending, enhancing or keeping away from, specific elements of school improvement. In other words, there is a direct relationship, but it is more nuanced than simple headline measures and performance metrics. For this reason, the detail and insight below provide a fuller qualitative narrative and for the purposes of system leadership, are considered more important than the data set out above.

4.2 Perspectives & Perceptions

A range of mechanisms were used to understand staff perspectives on IFtL's strategic decision to invest in the provision of 1:1 iPad provision. This included a large-scale survey, a range of research interviews and focus groups, workshops and classroom visit discussions (see Section 2

for more detail). As part of this process, 98% of leaders described digital tools as making a positive impact on children's learning, and on the process of teaching (as two separate indicators of impact) – drawing upon a wide range of their own internal monitoring, learning walks, discussions with staff, children and parents. The remaining 2% of leaders viewed digital tools as neutral in terms of impact. None of the leaders across IFtL who participated in surveys, interviews, focus groups or observations felt that digital tools have a negative impact on children's learning. This is not to suggest that leaders were unaware of challenges presented by the use of digital tools, but instead, qualitative analysis suggests that they saw these as comparable in scale and complexity with what they would expect with any other learning tool in a classroom context.

When classroom teachers were asked the same question, 93% of teachers across IFtL indicated that they felt digital tools were making a very positive impact on children's learning (the teacher sample included full representation across year groups, a representative sample of teachers at different stages of their career, and representation across all IFtL schools). A further 6% felt that the digital tools made no significant difference to children's learning either positive or negative compared to other learning tools (for reasons comparable with those described by leaders above), and the remaining 1% felt that digital tools had a negative impact on particular children – specifically, those with pre-existing behavioural needs. For that very small number of children, the presence of an iPad was seen as a potential distraction in the classroom – although notably, all teachers who surfaced this observation also highlighted that children with these characteristics generally displayed low self-control or poor internalised discipline, and thus the distraction 'happened to be' the iPad rather than the iPad creating additional distraction. This correlated with insights seen elsewhere in the research. For example, during classroom visits, the very small number of children who were observed moving off-task when using their iPad were the same children who were off-task during non-digital aspects of the lesson (e.g. rocking their chair during teacher input, fiddling with classroom equipment, not lining up appropriately during transitions etc).

When teachers and leaders were asked explicitly about the impact of 1:1 iPad provision on classroom behaviour, 72% of leaders and 54% of teachers reported that classroom behaviour had notably improved. Qualitative analysis across interviews, focus groups, surveys and observations suggests that this is due to several reasons: (a) digital efficiency reducing 'waiting' time (e.g. children waiting for help / the teacher (see Section 4.6 and 4.10); (b) increased accessibility to teaching and learning materials and on-demand help resources (see Section 4.8); and (c) greater motivation to focus on given tasks due to instant feedback and recognition (see Section 4.12). Notably, leaders and teachers referred to the central role of clear, consistent and positive digital etiquette being a core driver for the above (i.e. a clear narrative from leaders and teachers to

learners that the iPad is a tool for learning, for use only when supporting learning, and with clear associated behaviours and manners – reflecting purposeful and respectful classroom cultures).

One quarter of leaders and 37% of teachers felt that the presence of iPads made no difference to classroom behaviour – citing that children who tend to make poor behavioural choices when using iPads are the same children who do so in other scenarios – reflecting underlying behavioural or developmental needs which require targeted and personalised support provision.

When thinking about their own roles, 98% of teachers felt that the use of 1:1 iPad provision was making a significant positive impact on the quality of their teaching (e.g. better direct instruction materials, greater insight on real-time formative assessment data at scale, more precise adaptive teaching, etc), and 90% felt that the provision was making a positive impact on the quality of leadership actions (e.g. precision in subject specific coaching and professional learning, more targeted intervention as a result of better formative assessment analysis and collaborative resource provision, etc). Access, sharing and distribution played a core part of this view – something that was consistent across stakeholders. For example, 86% of leaders feel that children's ability to access lesson materials and resources via their iPad (e.g. through Showbie) made a significant influence on their ability to be independent within classroom activity, and as a result, create greater classroom efficiency. The role of democratised access to real-time data, on-demand resource provision, on-demand help and support, and collaborative co-creation of resources was consistent across children, teacher and leadership actions.

This perception was triangulated by children. Across age groups and schools, 52% felt that use of the iPad and the digital tools enabled them to learn more when compared with explicit, alternative ways of working in the same lesson. Approximately 41% of children recognised the importance of blended working and felt that the mix of approaches offered by their teacher enabled them to learn effectively. The remaining 7% of children felt that in some lessons, use of digital tools got in the way of their learning – a finding consistent with views by teachers and leaders and wider literature, that provision needs to be both blended, and adapted – with no single tool or approach being right for every learner in every lesson.

As seen in Figure 8, some of the most striking findings are that statistically, and at scale, the classroom activities which tend to have dominated classrooms nation-wide (i.e. writing on paper or in exercise books, and listening to a teacher talk around front-of-class materials), are those which children value the least. Conversely, children most value activities which are interactive and multimodal, creative and shareable with people beyond 'just' their teacher.

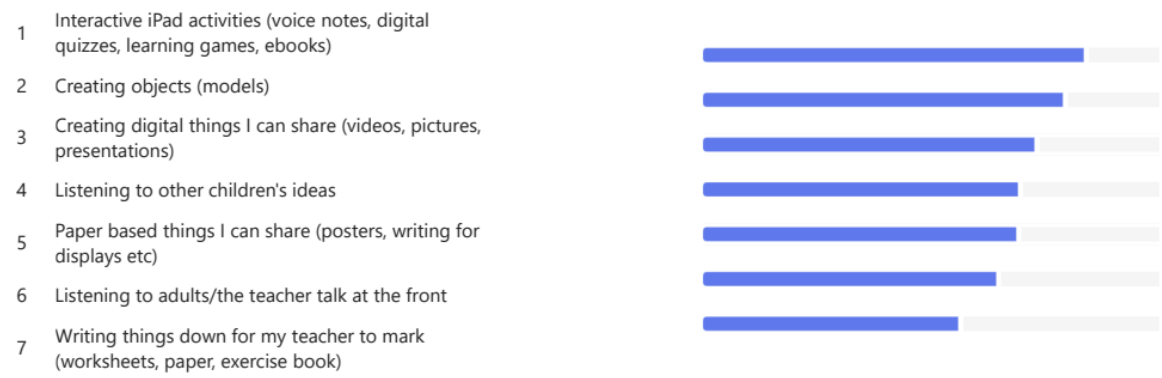


Figure 8: Children's preferred ways of working in classroom activities

With consumer lives beyond school generally now being digitised, personalised, on-demand, and collaborative, this perception is perhaps not surprising. However, it is helpful to probe further into the implications of real-time, on-demand mindsets in a classroom context because of the many and varied ways in which this can affect consequent human behaviour.

Children across year groups and schools spoke about the ways in which they used their iPad at school, and the ways in which they use it at home. Where children were able to move their iPad between school and home, and also had a clear understanding of expectations around appropriate use, they associated it with extending their learning and had stronger learner identities themselves.

Children spoke about the ways in which they learned skills or carried out tasks in one place (e.g. school or home), and then continued, expanded or revisited those in another place (e.g. home or school). Importantly, many children spoke about this being a two-way process rather than 'just homework'. In other words, they saw their learning and activities as equally valuable to them. This appeared to give children a greater sense of ownership and responsibility in relation to their learning – possibly because they were seeing their education as framed around 'their personal holistic development' rather than just 'their attendance at school'. In a national context, where a great deal of policy and accountability attention focuses on the idea of physical attendance as a proxy for learning, this distinction is important.

"Children regularly speak about their iPads as the essential tool for their learning. A few months after giving them the iPad, the children begin to distinguish the difference between their personal tablet from home and the school iPad with many children expressing preference for the creative tool on their school device. Learners talk about creating and learning rather than the physical device itself."

IFtL Leader

IFtL classrooms with established digital uses tended to also have established digital behavioural expectations. For example, when children were expected to listen to the teacher, they were expected to disengage with all resources on their desks (i.e. not fiddling with pencil cases, not interacting with their iPad, not drinking from water bottles). The specificity of this was important. For example, children who were utilising sensory tools to support regulation and concentration were able to do so, but the iPad was seen as a learning tool for specific purposes. This ensured clarity about the purpose of each object and what it was there to do. Accordingly, expectations about remaining 'on task' were implemented consistently across both digital and non-digital (e.g. children not permitted to go 'off task' on their iPad in the same way that they were not permitted to go 'off task' with physical resources). Across year groups and schools, children spoke about their own behaviour and that of their peers as consistent whether digital was involved or not.

In addition to clear behavioural expectations and classroom culture being applied consistently across both digital and non-digital experiences, IFtL classrooms also utilised Apple Classroom (for in-class management and monitoring of children's individual iPad screens), and Lightspeed (for broader monitoring, filtering and safeguarding). This coherent approach was communicated to children and staff alike, with children consistently articulating their appreciation that their teacher could view any of their digital activity – and their perception that this transparency prevented misbehaviour by both themselves and others across their class.

4.3 Digital Skills

After 2 years of iPad provision and a widespread professional learning package to support skill development, staff skill levels were reported as high. For example, all leaders reported having above average digital skills, with an 80% confidence level across the IFtL provided toolset. Teachers reported similar figures, with a 75% confidence level – although this dataset included teachers who had joined after the first wave of training and those who were joining mid-year which accounts for those reporting under-average digital skill confidence. A significant majority of

teachers reported confidence in understanding how to use most of the IFtL digital package most of the time in a way that supported learning. A small 5% minority reported that they did not yet fully understand how the digital tools available could support, extend or enhance existing pedagogical intentions. Further probing (through focus groups and interviews) suggests that this can be attributed to teachers who would benefit from further professional learning to help them to establish clear pedagogical intent within classroom activities. In other words, this was partly about digital confidence, but also partly about pedagogical confidence (i.e. broader teaching and learning skills and professional knowledge).

Children were asked about their perceptions around teacher digital skills, and vice versa (see Section 4.14 for children's perceptions). Notably, teachers reported that 54% of children had a high level of digital skill with the tools in the IFtL digital package, with a further 38% having a reasonable skillset as appropriate to their age and exposure (i.e. they had learned to use the tools that had been introduced to them).

Teachers nearly unanimously felt that digital skills were a critical component of the school curriculum – going beyond computing or computer science. Whilst there was some degree of variance when asked 'how' important, the majority of teachers (88%) felt strongly that children needed to learn the skills of digital application (e.g. how to use digital tools to support their learning 'now') rather than just learning digital skills that they may need in later life (e.g. workplace, coding). This position aligns with similar impact studies conducted across other trusts and groups of schools – reflecting a clear vision about digital tools being part of a core and contemporary learning package, not just a part of curriculum to be learned for future application (Haileybury, 2025; Thomas's London Day Schools, 2025; Abingdon House School, 2025).

4.4 The central role of accessibility

At IFtL, the core approach to making learning accessible for all is to reduce barriers to learning by empowering learners with tools for proactive access at the point of need. Findings as part of this study suggest that this approach positively impacts targeted cognitive activity, knowledge retention, and learner identity (and therefore confidence). In practice, learners use their individual iPads to see lesson presentations (eliminating visual and physical discomfort) and apply personalised accessibility features (e.g., screen filters, magnification, dictation) to teaching materials. This reduces their dependency on adults for low level questions and practical support, freeing teachers to provide human-centred intervention for more complex barriers (e.g. misconceptions, differentiated learning pathways). Digital tools integral to this strategy include

Showbie / SeeSaw for resource distribution and built-in iPad accessibility tools including screen reading and dictation. An IFtL leaders described this as,

> *"In our school, we introduced the role of Accessibility Ambassadors. A child diagnosed with global delay, and experiencing barriers to many aspects of their learning began to show and contribute her ideas and demonstrate learning in ways that had not previously been possible. She became so skilled at selecting accessibility features whenever she wanted to that we invited her to train another child who was experiencing significant learning barriers. This led to increased motivation and a very positive approach to both their learning."*

During classroom visits and observations, children consistently spoke about the ways in which digital tools made a tangible impact on their ability to engage with teaching and learning materials. Many were able to explain how this improved their access, focus, attention, concentration, understanding, knowledge retention and confidence with the application of knowledge.

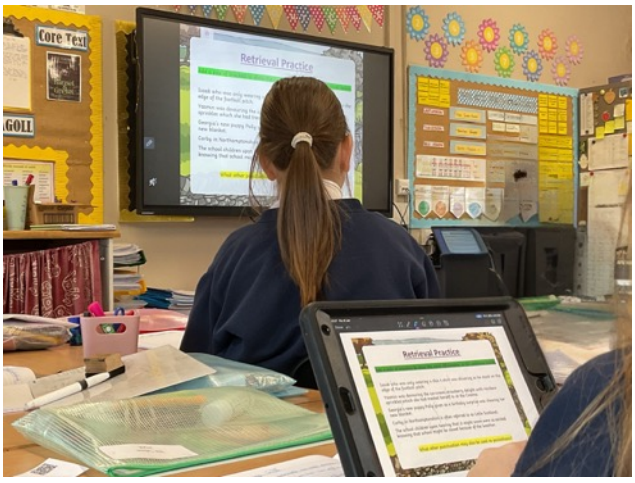
There were 3 core components to this:

1) seeing teacher presentation slides on a personal iPad instead of on the teacher's board created a clear view (rather than other children's heads creating partial blockages, sunlight reflections creating light distortions, classroom seating angles creating physical discomfort),
2) consequently, being able to apply personalised accessibility features to teaching materials (e.g. screen filters and screen masking to aid focus and reduce eye strain, highlighting and annotation for personal note taking, magnification and zoom for detailed analysis), and
3) the ability to independently toggle between teacher materials from previous lessons and current lessons (e.g. independently spacing and interleaving concepts alongside independent retrieval practice – embedded within instructional input periods).

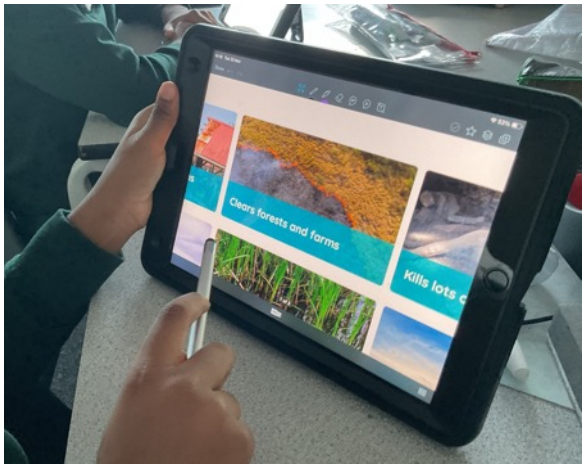
"When the child has the resource on their own iPad, the power of the learning is returned to them –

they can follow, annotate, go backwards and forward, use accessibility tools – the ownership is back in their hands where it should be"

IFtL leader



Children were observed across year groups, subjects and schools using a wide range of accessibility features. In many cases this is teacher-led, with teachers identifying particular needs (e.g. dyslexia), and offering the child specific accessibility features to support equitable access to classroom experiences (e.g. coloured screen overlays, screen magnification, screen masks). Children spoke about the benefits of this, referring to the screen mask reducing cognitive load when accessing high quality text stimulus;



"I don't get so confused because I can focus on the part of the slide my teacher is talking about"
Student, classroom observation

and the use of dictation tools for supporting emergent spelling;

"If there is a red line it isn't right yet,
you get words to choose from which helps me learn which one to use".
Student, classroom observation

Children with and without identified special educational needs spoke about the power of using the dictation tool on their iPad as supporting their cognitive load. For example,

"My brain can focus on the content – it's not being put off by the writing.
I can do that part later once I have organised my thoughts"
Key Stage 3 student

and

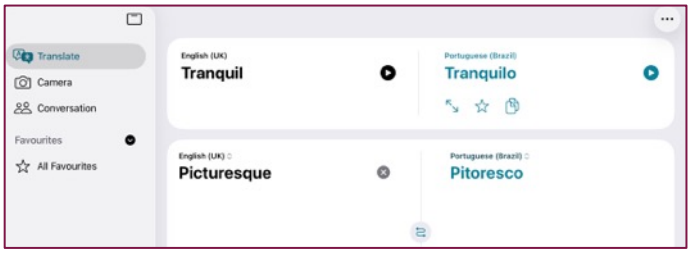
"I wouldn't write the same sentence as I just dictated because the words are really hard to spell. I can talk them but not write them yet. I will write them when I know them. This lets me use better words [vocabulary] now"
Year 2 student

Simple translation tools were observed and referred to as removing barriers for a number of children. Digital translate tools allowed children to access teaching and learning materials in their own language at scale (i.e. across multiple languages in the same class). Sometimes this enabled

live translation of instructional input. In many cases, the translation allowed the child to focus on subject content first and the development of the English (or other) language second, thus encouraging greater subject-specific progression and stronger integration of new knowledge to existing schemas created in their first language.

In many classrooms, children spoke about their ability to access materials, ideas, vocabulary, images and support through their iPad – often discussing experiences and knowledge from beyond school. Children valued the opportunities that the iPad gave them to bring these forms of cultural capital (Bourdieu, 1986), into the classroom, and deeply appreciated the very tangible links that they were experiencing when bridging between home and school. For example, children who spoke English as an additional language were observed reading texts in English, then translating into their first language in order to attempt to understand specific vocabulary, then returning to English again – thus expanding their vocabulary in both languages, as well as using knowledge of words in one language to make sense of unfamiliar words in another language.

"The translation tool helps me link my words…. It helps me understand new words …then I know what I am reading. Now I know the words in both my languages"
Student, classroom observation



In addition, Generative Artificial Intelligence (Gen-AI) was used in some classrooms to maintain high quality texts and re-pitch (convert) them to age-appropriate reading levels.

The uses of these tools removed text or language barriers from learners whilst importantly maintaining access to high quality stimulus and subject content. For example, teachers intentionally prompting Gen-AI to retain subject specific vocabulary while adjusting the remaining text to increase accessibility whilst retaining subject specific learning. In schools which had embedded this practice, there was a correlation with a rise in end of key stage attainment outcomes across the core curriculum as seen in Figure 8.

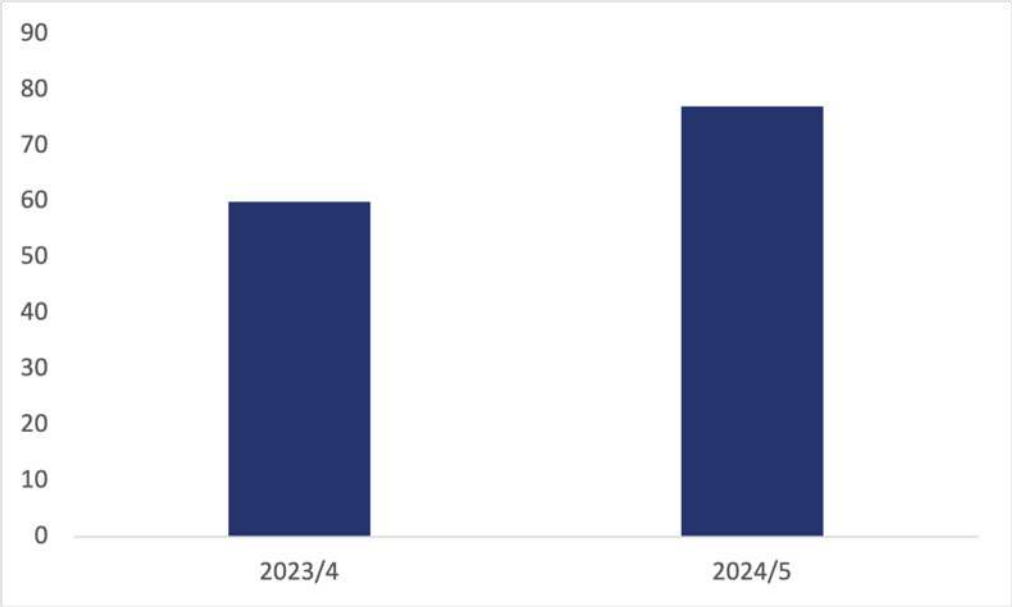


Figure 8: End of Key Stage 2 combined Reading, Writing and Maths outcomes after the introduction of AI-generated adaptations for learners

Surveying staff, approximately 68% of teaching staff and leadership are now using Generative AI tools to different degrees – mostly Copilot (given that IFtL works within the Microsoft ecosystem), with some use of ChatGPT, and mostly for production purposes (e.g. letter writing, creating bespoke lesson stimulus resources, adapting texts, creating multiple choice questions etc). Of those using Generative AI to create classroom-oriented materials, 23% of teachers felt that they were already seeing a direct impact whereby they had more capacity to support children in the moment of learning (rather than needing to re-resource). Related to this, an additional 35% of teaching staff felt that the use of Generative AI was having a notable impact on their workload and consequently their work/life balance – which may have implications on staff retention.

4.5 Digital Exposure

A small number of children spoke about a preference for non-digital materials. It was important to unpack this preference in similar depth to the favourable views, with two emergent themes.

The first related to total exposure (e.g. if a high volume of a child's day – across both home and school) was spent on near-sight digital screen viewing (i.e. personal device based tv/video game viewing before and after school, smartphone viewing when travelling, during mealtimes and when socialising, and then iPad use during lesson activities), children spoke about screen fatigue. In these scenarios, children often had limited awareness or access to alternatives outside of school

(e.g. high-screen use being normalised in the home environment, or meal/travel habits normalising screen use), and therefore, they saw the school environment as the space that might offer an alternative. This presents a moral dilemma because of the potential life impact and opportunity costs involved. For example, if a child were to reduce their low demand screen use at home (i.e. a lesser amount of passive video watching, isolated gaming or feed scrolling), then they create capacity for an increased amount of physical activity, social interaction and creativity (Davies et al., 2019).

Conversely, some studies indicate that for Generation Alpha and Gen Z, up to a certain amount of creative and social gaming and social interaction (e.g. video-calls, community messaging), creates a sense of belonging amongst peers 'if' other forms of socialisation are not available to the young person - e.g. where parents not be able or willing to facilitate the child attending in person social activity such as sports groups, playdates etc (Filby, 2023; OECD, 2019). Thus, for a child who has limited social interaction with peers (and potentially adults) outside of school, a passive screen habit becomes more likely, and thus they see the classroom as a place that they hope will offer an alternative (Winstone (2021).

This is perhaps helpfully illustrated through the results of a survey which children across all IFtL schools were asked to respond to. Figure 9 sets out the 5 most common activities that children use digital devices for *outside* of school.

Figure 9: The 5 most common types of digital activity that children attending IFtL schools engage with outside of school

Notably, the two dominant out-of-school digital activities are low-demand, often associated with limited social interaction and high passivity. Significantly, representing a completely different type of experience to the child's in-school activities.

This is perhaps clarified further by children's responses to their rationale for taking part in different digital activities outside of school. For example, Figure 10 sets out a range of reasons motivating children (aged 4-16) to use digital devices or tools *outside* of school.

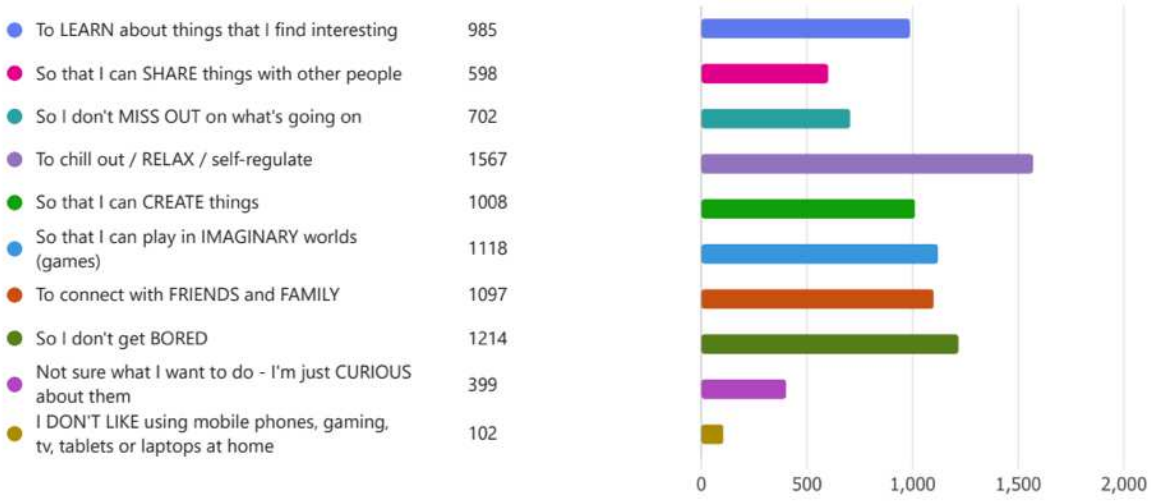


Figure 10: Reasons why children attending IFtL schools (aged 4-16) use digital devices outside of school

These insights suggest that the majority of digital use might be categorised as leisure/play or, for 18% of children, a form of self-regulation. A small number of children (8%) are motivated by a sense of belonging and not missing out on peer group activity. Perhaps concerning are the 15% of children who report use of digital devices outside of school 'so I don't get bored', with 1% of children taking a contrasting view – that they prefer not to use digital devices at home (perhaps inferring that they have a range of other activities that they engage themselves with).

In relation to this impact study, it is notable that only 11% of children reported using digital tools outside of school to learn about things that they find interesting (which may be school related or non-school related).

These insights are valuable because they create (a) a demarcation between what children experience at school and at home in relation to digital use, and (b) in a national landscape where there is a growing concern around 'screentime' for young people, the differences between home and school are striking.

Probing this further, this study asked about rules and boundaries that children have in their home environment. A range of surveys were used to surface anonymised trends so that this issue could be considered for children across a wide range of age groups and backgrounds. Across IFtL, 69% of children have rules, boundaries or norms relating to their use of digital devices in the home environment, with 31% having no restrictions at all at home. Younger children tend (but not always) to have greater restrictions, and older children tend (but not always) to have fewer restrictions. Of most significance, was that approximately 80% of children want guidelines from their family

(notably over 10% more than those who currently have guidelines). As part of this impact study, families were not surveyed to ask about their views on digital use boundaries in the home environment, but other similar at-scale studies have done this – with children's self-reporting tending to be broadly accurate and representative of typical home environments (Aubrey-Smith, 2025). It is therefore likely that the figures can be viewed reasonably reliably. It is perhaps helpful to contextualise the presence of boundaries surrounding digital use further. For example, in broader research literature surrounding this, the consensus appears to be that the more informed parents are about the importance of broader wellbeing (i.e. children having a blended mix of indoor and outdoor activities; near sight and far sight focal distance based activities; social and individual experiences; cognitively challenging and restful activities; physical and stationary activities, and sufficient cognitive and physical rest), the more diligent they are at providing boundaries at home to support this (e.g. Gagliardi, 2025; Howard, 2024). This is perhaps reflected in the survey data from IFtL teachers and leaders, who have had explicit training and information in relation to children's wellbeing which appears to correlate with the 98% who have chosen to set out clear boundaries for digital tool or device usage at home.

In light of the restrictions set out above, this study also asked teaching staff and leaders at IFtL about self-imposed boundaries around their own uses of digital tools. The dataset in this case indicated that 60% of leaders give themselves self-imposed boundaries about how much they use digital devices outside of school with the remaining 40% choosing not to do so. Figures are similar for teachers, with 58% giving themselves self-imposed boundaries, and 42% choosing not to do so. It appears that there is some divergence between boundaries set for children and boundaries that adults choose to set for themselves. Whilst this might be argued as being the prerogative of adults in families, it may be helpful to consider the reasoning behind boundaries. If boundaries are intended to support healthy, balanced, social and active lifestyles, then it may be helpful to consider whether this applies as much to children as it might to adults.

That said, children's familiarisation, usage and associations made with digital devices and tools is not all about the boundaries and rules that they are given. Much of their understanding also comes from the role modelling of adults around them (Gagliardi, 2025; Howard, 2024). What children experience others doing becomes their understanding of the 'accepted norms' and therefore strongly influences how they conceptualise particular behaviours and objects, and the choices they make about their everyday practical actions and behaviours.

The scope of this research did not extend to surveying parents to ask about their digital practices in the home environment (i.e. what IFtL pupils would be experiencing outside of school as part of at-home role modelling), but IFtL teaching staff and leadership were asked about their uses of

digital tools and devices outside of the school which might be a useful proxy – at least as a stimulus for thinking. For example, 17% of adults surveyed reported that they either use digital devices to avoid boredom, or that in a home or leisure environment, they default to getting their smartphone out when unsure what to do. This is broadly comparable with the 15% of children who report use of digital devices outside of school being 'so I don't get bored', suggesting that this is not a generation-specific pattern of behaviour, but perhaps explained by other influences.

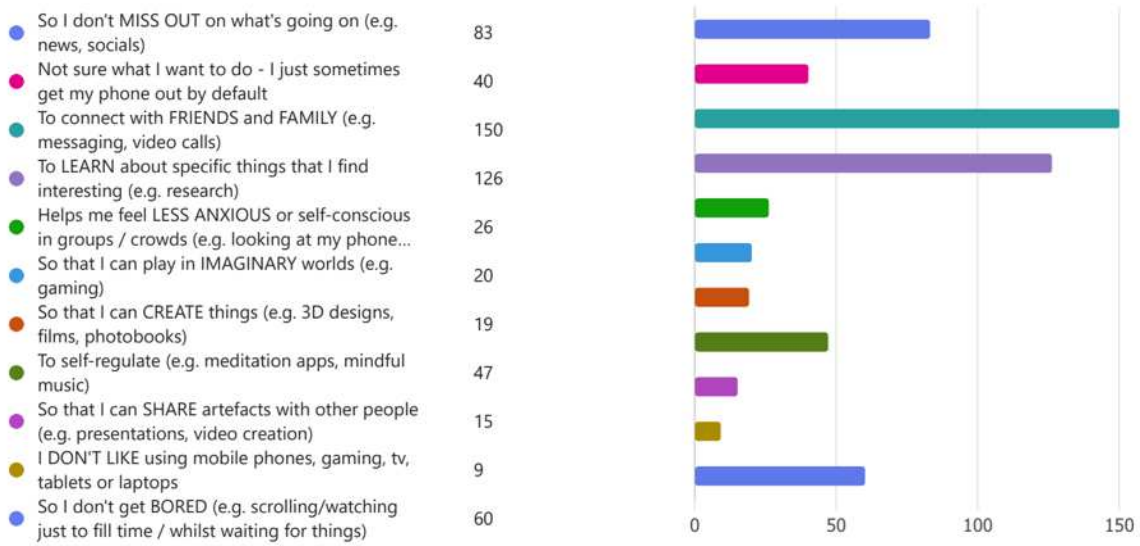


Figure 11: Reasons why teaching staff and leaders working across IFtL schools use digital devices outside of the school environment

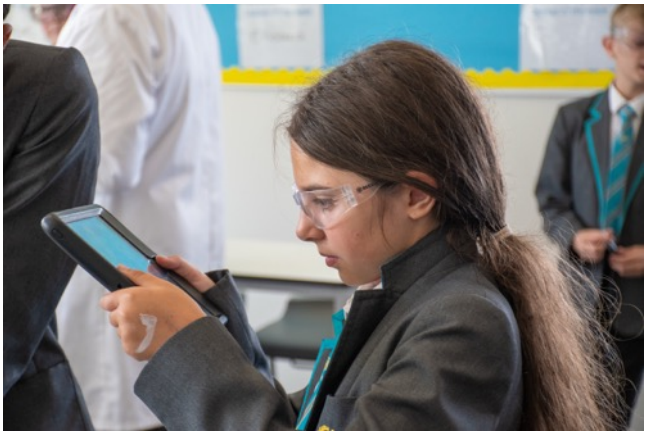
However, where the data does contrast is that 25% of adults surveyed who work at IFtL schools use digital tools to connect with friends and family outside of school, compared to 12% of young people. Furthermore, whereas only 11% of children use digital devices in the home environment to support learning about things that interest them, this rises to 21% for teaching staff and leaders.

Using insights such as these to stimulate thinking about influences that may affect children's perceptions about digital devices and tools is important in the context of this study. This is because children form an understanding about the purpose of a tool (in this case an iPad) based on what associations they have previously experienced – not just at school, but at home through their own direct use, at home when observing siblings or family members and friends use, and through wider societal use (e.g. on public transport, in public spaces, through conversation with other children and adults). There is therefore a bi-directional relationship to be considered in the IFtL context, (1) how much influences from home affect children's iPad behaviours in school, and (2) how much school norms around iPad use affect iPad usage at home.

4.6 Pace and Productivity

Another theme which arose relating to children's perceptions about the role of iPads in classrooms relates to pace and productivity. For some children, there was a perceived friction between classroom expectations about the pace they were expected to work at, the pace they felt cognitively capable of working at, and the pace that their hands (whether handwriting, using physical objects, or using their iPad) could physically work at. The core of this issue relates to the relationship between cognition speed and expected pace of working, rather than the vehicle used for the activity (e.g. iPad or paper-based task).

Children spoke about non-digital equivalents (e.g. printed copies of lesson resources, A3 or large text copies of texts, flipping back and forwards in their exercise books), but saw these as cumbersome practices where desk space became cluttered and physical moving of materials was disruptive to peers and thus triggered negative social interactions - consequently reducing likeliness of resources being used. With this in mind, the relationship between desk 'real estate' (approximately 60cm wide per child; DfE, 2014) and the relative sizes of materials used on that space are potentially useful to consider (e.g. the size of an iPad, the size of an exercise book plus a resource sheet). Furthermore, children in Key Stages 2 and 3 felt very self-conscious about being seen to use physical resources or materials that differed to their peers (whether support or challenge).



Children across year groups and schools consistently spoke about their preference for accessing teaching materials on their own personal device and the positive benefits (personally, socially & emotionally) of being able to then use a range of accessibility tools to personalise their experience of those teaching resources (see also Section 4.4).

For example, students in a secondary science classroom conducting a science experiment used their individual iPads to capture photographs and videos, and then attach voice note annotations in-situ, at each stage of the experiment process. This notably embedded a metacognitive process of students reflecting-in-action (Schon, 2019) about what they were doing in order to summarise their understanding. During the following lesson, students were then able to return to their multi-media notes to support retrieval of key ideas through a highly personalised and scaffolded approach. They were also able to combine these personalised records with wider teaching materials, benefitting from accessibility tools and on-demand access. This memory and concept consolidation removed many traditional barriers for students who might otherwise have been asked to recall an investigation which took place several days previously. As a consequence of the 1:1 iPad provisioning, the emphasis on the use of photos, videos and voice-notes, and the embedded on-demand access to teaching and learning support materials and accessibility tools, far greater equity was present across the classroom. The focus in the classroom was clearly on supporting and stretching the development of scientific knowledge and understanding for all learners, rather than restricted or limited to those with exceptional memory recall.

4.7 The changing role of the teacher

As highlighted in Section 3.5, teaching staff and leaders across IFtL represent a mixture of different pedagogical belief systems, with a general dominance of Constructivism. As at 2025, this broadly reflects the national picture – with policies, teacher training and professional development models tending to be built upon the same principles (Aubrey-Smith, 2025). Typically, Individual Constructivism appears in classrooms as a teacher being the source of knowledge and expertise; providing stimulus, questions and activities which prompt learners into illustrate their ability to understand a given topic. Under an Individual Constructivist model, the teacher identifies and addresses learner misconceptions - i.e. incorrect ways of understanding or representing material presented by or via the teacher (Twining et al., 2017).

Through the observations, focus groups and analysis workshops in this study, the role of the teacher within this belief system was noted to have evolved from being the sole focus of instruction (e.g. front of class direct instruction), through to becoming a more facilitative role –

guiding independent, agentic, reflective learners. This does not mean that the underpinning belief system has changed (i.e. the teacher is still perceived as the gatekeeper of stimulus and learning), but the pedagogical approaches (teaching and learning strategies) that are mobilised in classrooms appear to have shifted.

> *"When the teacher is talking, I'm not holding my learning, they are"*
>
> *Student, classroom observation*

For example, across IFtL classrooms, clear evidence illustrated a common belief that a teacher should provide a toolset which enables learners to proactively access support at the point of need rather than being dependent upon the teacher as an operational gatekeeper – changing a core classroom management strategy. The role of 1:1 device provision was core to mobilising this, with individual digital devices for lesson materials enabling access to content (e.g. teaching materials, video of direct instruction or modelling, activity scaffolds etc), and access to participation (e.g. accessibility tools such as talk-to-text, screen readers, magnification etc).

> *"Pre-recorded lesson toolkits uploaded to Showbie before the lesson has facilitated a real shift in the role of the teacher in the lesson – they facilitate and guide, focussing more on quality and less on the process because that aspect has been recorded."*
>
> *IFtL leader*

Leaders were asked explicitly about this shifting role of the teacher, with many reporting an increase in real-time interactive activities (including real-time formative assessment based tasks through Socrative (Showbie Assessment) – see Section 4.13), and children exchanging work-in-progress with peers for digital feedback. Conversely, leaders reported a reduction in the volume of time children were spending listening to teacher talk passively, and an increase in the interactive nature of direct instruction – shortening feedback cycles and increasing the precision of adaptive teaching and responsive interventions.

Probing further into these findings as part of analysis workshops indicated that this was most likely due to two key changes. First, that the ubiquitous presence of 1:1 iPads brought equity into the classroom. Historically, teachers had to navigate their choices around teaching strategies based on a diverse range of needs. Some children might excel at providing real-time feedback by putting their hands up or writing on wipe boards, but other children would be unintentionally excluded through these mechanisms due to poor handwriting, or low confidence in sharing

answers in front of peers. The 1:1 iPad provision offered achievable alternatives to both – with children able to respond through a tap, click, swipe, typing or voice – keeping the focus on the discipline of each subject rather than the dominance of handwritten responses. Furthermore, that children of all ages, but particularly Key Stages 2, 3 and 4, described themselves as not now put off responding in class based on what their peers may think of them and their answer.

The 1:1 iPad provision had brought dignity to students of all ages – allowing them to respond anonymously to shared spaces (with only the teacher seeing children's names), or confidentially to real-time formative assessment tasks – allowing the teacher to see every child's responses, but children only seeing their own work. The shift to a more dignified way of working was articulated by children across IFtL schools as profound.

"It's my learning, so I want to do it. But I don't want everyone seeing if I'm right or I'm wrong all the time. Like sometimes that's ok but mostly it just needs to be me and [teacher name] that see my answers right? Why would the whole class need to know if I got question 4 right?"

Student classroom observation

"I don't like it [peers seeing my answers to questions] cos then I have to think about what [name] might say about me or what [name] thinks of me. Then I can't think about my learning. It makes me not want to answer at all."

Student classroom observation

"[Answering questions] on the iPad – it marks it and tells me what I have got right or wrong and [teacher name] can see, but not like, anyone else. [It's] much better. I want to do better because of that. It makes me want to learn more and do more"

Student classroom observation

A common theme that emerged across a range of practices observed related to the changing role of the teacher as perceived by children. For example, whereas historically a teacher may have used the majority of their capacity providing direct instruction, followed by a series of questions and feedback – aimed at supporting a whole class simultaneously, a number of digital tools now offer an opportunity for this to be provided in a way that is more personalised for the different children's needs in a class (e.g. LbQ, Socrative, Lessons via Showbie). Children across year groups and schools shared their perceptions about the role of their teacher with framing often being about

signposting, supporting, reassurance and encouragement. Notably, whilst children generally saw their teacher as highly knowledgeable, they did not feel that new knowledge, stimulus or feedback needed to come solely from the teacher – often talking about other sources of information (digital resources), reassurance (auto-marking feedback, checklists, structured peer feedback), and audience (peers, parents, public).

Across year groups and schools, a number of teachers have developed creative and scalable ways to repurpose their time from checking children are on-task to instead increase capacity spent on very targeted intervention (both support and challenge). For example, using Showbie for children to independently access or revisit task specific instructional voice notes or checklists, video of teacher input or modelling, text-based task instructions and supporting guidance/support resources). Children working in these ways appear to take greater responsibility for their own learning (in particular, their next steps and any associated troubleshooting) and appear to make greater progress (relative to their own starting points, needs and trajectories).

Two schools in particular, invested in a set of iPads in Year 1 early in the 2024/5 academic year. A key intention and vision of this decision was the design and implementation of a system of QR codes to guide children to access key phonics resources to learn key skills and knowledge in addition to the usual direct teaching. Teachers created bespoke pathways for learners guiding them to scan QR codes that linked to areas that they had not yet secured. Children acted autonomously in independent learning time to follow their QR codes for additional phonics practice. The teacher was not directly involved with most children at the point of them scanning the QR code and practising the foundational knowledge and skills, creating capacity for more targeted teacher intervention. Following the introduction of this approach, phonics screening data rose (see Figure 12), with one school reporting a 15% increase and another an 18% increase in a year. Leaders attribute a significant part of this to the targeted use of iPad provision to augment phonic knowledge consolidation.

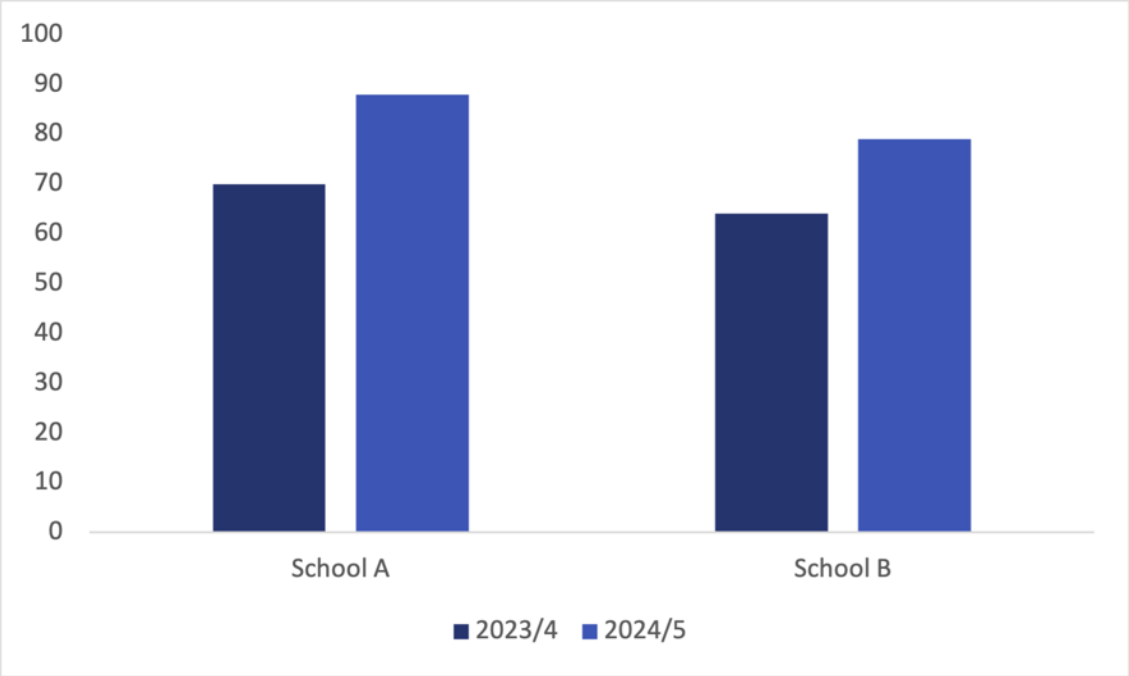
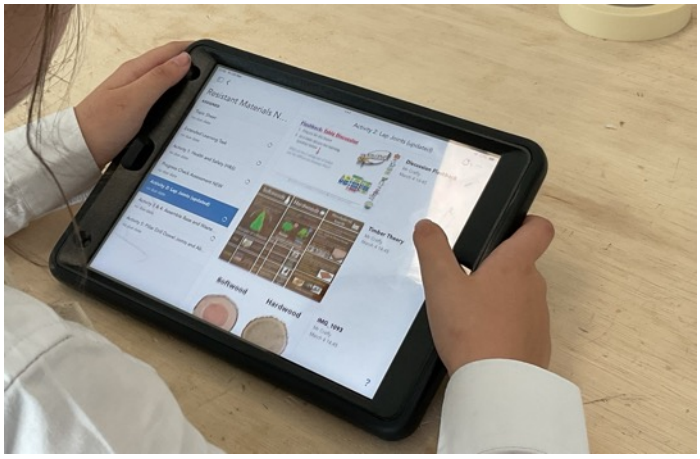


Figure 12: Aggregated phonics data in IFtL schools who implemented QR based iPad phonic consolidation in Year 1 continuous provision

4.8 Deliberate planning for autonomy

Digital tools were used to intentionally support, extend or enhance the autonomy and independence in learner experience from Early Years through Key Stage 3 - in very different ways depending on the age and needs of children in each year group / key stage. For example, voice notes created by a teacher so that children could independently access task or challenge instructions, photos and videos being used for children to self-evidence their achievements (removing the desk-bound nature of children evidencing skills/knowledge/achievements), the building of portfolios of work over time, and children and teachers both contributing to the self/peer/teacher feedback cycle through the use of voice notes, comments, edits and digital

annotations. A small but sophisticated set of digital skills was seen across all key stages which empowered children to take responsibility for their own task management and classroom activity coverage. These included (but may not be limited to), use of dictate/voice notes, use of camera (for video and photo), use of Showbie to access and deposit resources, use of annotation tools, use of Safari search, use of accessibility features and use of spell checker to spell words correctly. In schools which had built familiarity of these tools into younger year groups, children's confidence and fluidity of tool use was greater, meaning that teachers could utilise these tools as part of everyday teaching and learning without needing to lose core subject time on teaching foundational digital skills to older year groups.



"In our school, the Leuven Scales for Wellbeing and Involvement highlight children's deep engagement in autonomous learning, especially during scaffolded Challenge Time. This enables pupils to show what they know in creative, independent ways, building pride, resilience, and ownership of learning.

Our high expectations foster quality independent outcomes, captured through videos, photographs, hands-on exploration, and imaginative work. The iPad enhances inclusiveness, allowing every child to record and share achievements through multiple formats, ensuring all voices are celebrated.

Together, these practices nurture confident, capable learners where wellbeing, involvement, and achievement are seamlessly connected. Through intentional digital tool inclusion in our provision, our learners are demonstrating gains in the Leuven scales with engagement growing and securing more sustained learning."

IFtL Leader

As part of the broader pedagogical vision across IFtL, there was an intention to untether the teacher from the front of the classroom in order to reduce teacher-talk and allow learners to move towards interactive learning activity sooner in lessons – utilising greater personalised capacity for learning time. One of the pedagogical intentions for the introduction of wireless technologies and portable devices (i.e. iPads), at IFtL was to support and enable this approach. This encourages

and enables professionals to maintain the monitoring of whole class activity (via device monitoring dashboards), whilst simultaneously using established classroom management principles to encourage student focus (e.g. sitting beside students who benefit from additional, early support or who are easily distractable, moving between students to infer expectations about compliance and attention, swiftly identifying and reducing the impact of misconceptions). This approach to classroom management tends to lead to a reduction in low level behavioural disruption which in turn increased teacher capacity for instruction and intervention.

As IFtL teachers have observed, there are 'teething periods' at first when untethering the teacher from historical ways of working whereby (a) teachers have to learn to develop new norms, e.g. (i) not standing at the front out of habit; (ii) understanding how the classroom management psychology works in practice; (iii) setting clear expectations to students; (iv) reinforcing expectations with clear praise for compliance and consequences for deviance, and (v) ensuring that students have a clear understanding of the reasons and benefits of changed ways of working. Once these are established – which typically appears to take 3-6 weeks to become embedded as a 'new norm', there are clear indicators of impact seen by both teacher and students.

Across IFtL schools, impact indicators included the more effective use of lesson time – with a greater proportion of student time spent practicing their learning and receiving targeted support or scaffolding, rather than whole-class instruction. In turn, this appears to minimise student waiting time, benefiting both independent and struggling learners. The more mobile teacher also allows vulnerable learners to be supported at their own pace – with a teacher nearby reassuring and intervening incrementally rather than in larger chunks of support, while the rest of the class continues with interleaved support. In addition, teachers are able to support engagement through proximity to students who are more vulnerable to distraction while still modelling a task to the whole class on the main board via screen mirroring.

4.9 Removing text-based barriers

Nationally, there are a number of defaults that teachers use to engage learners with practicing and evidencing their knowledge, skills and understanding with curriculum concepts. Typically, these include written documentation (e.g. worksheets or exercise book based tasks submitted to a

teacher), demonstration (e.g. practical activities or production of artefacts as observed by a teacher), or discussion (e.g. presenting evidence orally in a teacher's presence).

Due to most classrooms in England being structured around a teacher ratio of roughly 1:30 (teacher:pupil), teacher observation of activity or artefact production, and teacher listening to individual oral responses tends to be excluded. Usually, this is due to a perception or practical limitation of 40-minute lessons, 30 students and the mechanics of quality observation taking more than 1 minute per student. Consequently, handwritten ways of working tend to be preferred– allowing all students to create evidence which can then be reviewed by the teacher both inside and outside of the lesson capacity – with potential for more than a 1minute per student ratio of teacher time. This has become a particularly appealing way of working over the last 40 years (Brighouse & Waters, 2021) where the demand for monitoring student work has expanded to include teacher, parents, leaders and inspectors – all requiring visible evidence of learning to be represented outside of the moment of learning (the lesson).

The capturing of evidence of learning has arguably become heavily influenced by the needs of those who are neither the learner, nor present at the moment of learning. With the dominance of those voices and needs, learners have inadvertently become beholden to ways of working which in some cases can limit or even prohibit learning itself. For example, those who struggle with reading or writing due to specific learning difficulties such as Dyslexia - thought to be around 10% of the national population (British Dyslexia Association, 2025).

IFtL have taken a typically thoughtful approach to 'unbuckling learning from writing' – offering students alternative means by which to capture learning. This incorporates typed responses, the use of talk-to-text (dictated) work, photographed or videoed examples of work, recording of audio files and other forms of digital inking (e.g. diagrams, annotations, 3D models etc).

There are a number of benefits to this which encourage creativity on the part of learners and offer equity to neurodiverse preferences about presenting or representing learning. However, there is also an important contemporary point to consider relating to the pace of working.

Using the example of an 11 year old neurotypical child, contemporary research evidence suggests that a typical handwriting speed is likely to be in the range of 25-50 words per minute (Downing and Caravolas, 2024). Notably, this average was found to rise with age for girls more than boys, and for right-handed writers more than left-handed writers (Graham et al., 1998). For students who have experienced a broadly equivalent exposure to touch typing lessons as handwriting lessons, the average typing speed of an 11 year old is considered to be in the range of 60-75 wpm - with speeds tending to be slower on touch-screen keyboards and faster on physical keyboards, girls tending to type faster than boys (Dhakal, 2018). Whilst these figures speak to a crude average, for students who have had comparable support to develop both handwriting and typing skills, it appears that typing roughly doubles productivity in terms of output (Aubrey-Smith, 2025a, 2025b, 2025c). Drawing upon the likely rationale for classrooms nationally defaulting to handwritten forms of evidencing learning due to the implications for teacher capacity and accountability monitoring, there is perhaps an argument for an evolution to the defaulting of typing due to the increased productivity.

However, there are those who express discomfort with the idea of moving from writing to typing based on a perception that the physical act of handwriting leads to deeper understanding of content, than seen when typing. This is a well-meaning, but misinformed perception based on two influences. The first, is that research which has argued handwriting as being cognitively superior have done so on the basis of single focus task comparison. For example, copying writing versus copy typing – and then testing recall of content. In a classroom context this might be conceptualised as a child taking notes from the teacher's front-of-class explanation. This is problematic because when transcribing by pen or by keyboard, a learner's pace of recording will vary (typing generally being quicker), which tends to mean that those who handwrite choose to capture concepts over verbatim notes, whilst those who type quickly will attempt to capture notes verbatim rather than summarise. Therefore, the nature of cognitive focus 'during' the process is different, and therefore what can be recalled will be different (e.g. conceptual understanding versus forensic detail) (Marano, 2025). It is thus not the vehicle itself (i.e. handwriting, or typing), but the pace at which the vehicle can be used (handwriting or typing speed), and thus how that pace awareness impacts the individual human prioritisation about concept capture and thus cognitive focus.

During classroom observations in IFtL classrooms, some students articulated their own awareness of this. For example, some learners raised their observation that if typing is quicker than handwriting then they ought to default to typing for most or all of their classroom tasks. If viewed purely through the lens of speed efficiency and productivity, then this is a logical conclusion. However, viewed through a pedagogical lens, not all classroom tasks could or should

be undertaken with a faster pace. Sometimes being quick is preferable (e.g. instant recall of facts for test preparation, copy typing), sometimes being slower is beneficial (e.g. idea generation, creative language, capturing concepts within narrative passages or explanations). Often, fast-paced classroom tasks are encouraged as a default, simply because of the pressures of curriculum timetables and syllabus coverage. However, the appropriateness of a particular pace depends on the pedagogical intention that underpins the task itself, rather than an overt focus on the process or product used to achieve the task.

Some students countered the speed-efficiency argument by saying that they would not want to type most or all of their work because they find that handwriting helps them to digest and retain key information. Again, if taken at face value, this argument is also a logical conclusion, with due respect to preferences that learners have for working in different formats. However, it is helpful to probe deeper into student understanding about the relationship between handwriting and the digestion and recall of content. When asked to reflect on why they felt that handwriting aided their relationship with content, all students articulated the same theme, which was ultimately about matching the pace of cognition with the pace of physical activity. In other words, the habits that they had formed around handwriting – slower cursive patterns, moving to a new line on a page, shaking their hand when it ached, allowed them to slow their thinking down. It appears to be the peripheral psychological, physical, emotional and behavioural habits around handwriting, rather than the physical act of handwriting itself, which determine cognitive behaviour and physical comfort (Fajariani et al., 2025). It is helpful to consider this over the timeline of children's experiences across Early Years to Key Stage 4. Nationally, in Early Years and Key Stage 1, children spend a significant amount of time learning what a good handwriting posture looks like – how to sit at a desk correctly, how to position the body in comparison to the table, how to hold a pen or pencil in relation to the paper page, when to move or angle the page, and so forth. Far less time is spent teaching those peripheral skills and physical habits around the use of digital tools other than curved hand position for typing. For younger students who have benefitted from touch typing being taught explicitly within the curriculum, there is some mitigation as they develop and practice these habits – over time becoming personal norms. For older students in Key Stage 3 and 4, their exposure to these foundational skills and habits may be missing, and thus the fluidity of experience when comparing their handwriting and typing experiences will have too many confounding factors to make a simple direct comparison scientifically robust.

In the broader literature around this issue, student perceptions and student voice are rarely considered – with proxies of efficacy relying on reductionist laboratory style testing, adult participants or surface level understanding about what happens in classrooms (e.g. Marano, 2025; Van der Weel and Van der Meer, 2024). Creating space for student perspective reveals much

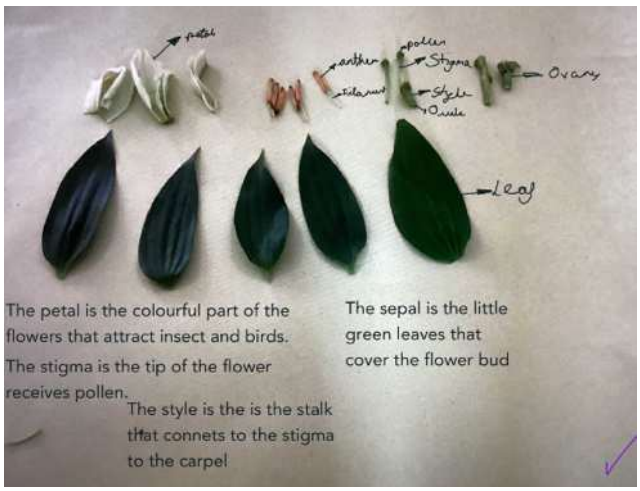
needed clarity. For example, at IFtL, students spoke about their ability to type and read quickly, but that typing speeds or reading speeds might be faster than their thinking speed - resulting in their disengaging with the content because their fingers or eyes were moving faster than their conscious thoughts and become tired or fatigued. These students had made an assumption that because they *could* type quickly, they *had to do so continually*, rather than draft, pause, review, edit and then continue. None of the students reported an awareness that they could *choose* to slow down or pause periodically, allowing themselves time to think. This assumption tends not to happen with handwritten work because most people tend to pause naturally when they reach the end of a line, when their hands ache, if their pen runs out, or they need to move a piece of paper, so they have a natural momentary break which allows their thinking to catch up with their eyes and fingers. Consequently, students assumed that it was the format (typing v handwriting) that determined their cognitive strengths rather than the habits that they had formed around the use of those formats. In turn, the narrative and observed behaviours by classroom teachers tended to reflect the same assumptions and misconceptions (a trend reflected in broader national and media narrative).

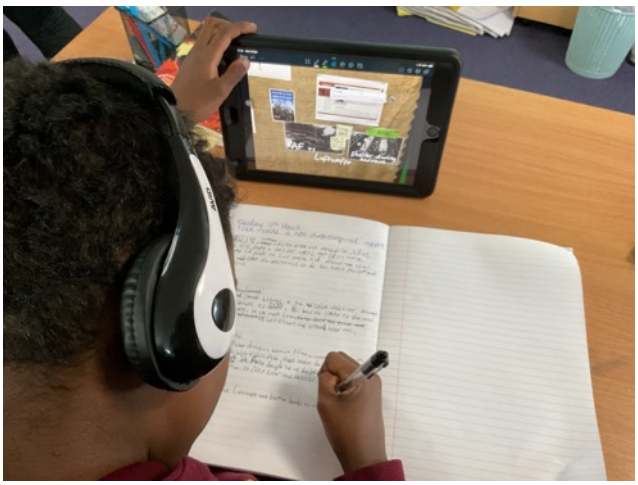
Similar arguments have been made in broader research about student reading and writing. For example, historical arguments about students benefitting from a greater depth and understanding when reading physical books rather than on-screen material (e.g. Delgardo, 2018). However, contemporary studies (e.g. Peras et al., 2023), are increasingly beginning to suggest that differences are about surrounding habits (e.g. fluency in reading, cognitive skill, skill in specific reading techniques, physical comfort, prior attainment, broader exposure to text) rather than the format (e.g. a simplistic printed page versus on-screen page of exactly the same text). As more research is carried out, findings in this space are likely to become more precise and therefore more meaningful. Until that time, it may be diligent to exercise caution with generic claims about digital versus paper comparisons.

Whilst we await more forensic classroom-oriented research about these considerations, the approach taken by IFtL is both informed, ethical and pragmatic – to offer young people choice and space, and explicit support with the metacognitive skills required to enable them to make informed decisions about their preferred ways of working. Leadership across IFtL schools has provided a contemporary learning toolkit that comprises both digital and paper based ways of working, and encourages teachers to consider, and explain to their classes, which format may be most appropriate and effective for each specific task that they are engaging with. If the purpose of a task is to be creative, then a slower pace, and more flexible means of recording are offered. If the purpose of a task is instant capture or instant recall, then a highly structured and automated

means of recording is offered. The critical finding is that the pedagogical intention – including the rationale behind the pace of a task – is considered before the choice of tool.

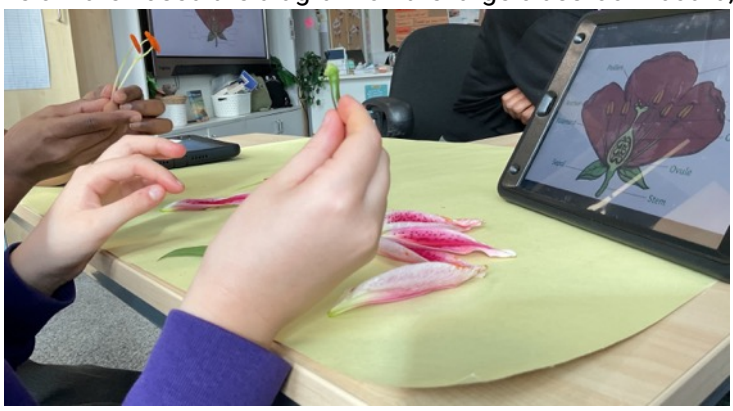
Finally, it is important to consider learner perspectives on the implications of working in different formats. Across year groups, subjects and schools, children across IFtL consistently spoke about their appreciation for working in a diverse range of media. Children aged 4 through to 14 spoke about self-evidencing practical achievements using photos or videos to evidence learning and then voice notes or keynotes to narrate the processes used, key points self-review or peer assessment of that learning. Children spoke about enjoying this way of working far more than the historical over-reliance on handwritten formats in exercise books or worksheets, and notably, were able to articulate the impact that the variety had on their ability to explain what they had learned (not just what they had 'completed'), how they had learned it (rather than explaining functional processes), and how it affected their broader curriculum domain understanding. In other words, as a byproduct of the wide range of different ways of engaging with learning stimulus and then evidencing that learning, children appear to have developed greater metacognitive understanding of the learning processes themselves. This might be due to the capacity created by efficient ways of working freeing up teacher-learner intervention to focus on more detailed thinking or might be to do with children shifting their attention from process to purpose – further investigation would be necessary to understand whether this is causal rather than correlational.





However, for now, there does appear to be a link between blended learning and an increase in the quality of metacognition (EEF, 2025).

Classroom observations surfaced a range of demonstrations of this in practice. For example, during a science lesson, children were observed working in pairs to dissect flowers and identify and name the parts of them. While some children used the diagram on the large classroom board, many chose to bring their learning into their own desk real-estate by accessing the diagram on their iPad. They then labelled and annotated photographs they had taken using audio and text, using split-screen in order to refer to support resources they had been given.



Across IFtL classrooms, learners regularly scaffolded their writing by first capturing ideas using voice notes, and then using those audio recordings of their ideas to develop full written outcomes. Similarly, children were regularly seen using screen readers to hear their writing read back to them which scaffolded their editing of punctuation and grammatical features. Critically, these tools were seen in use across year groups, subjects, lesson formats and contexts – as means of using the most appropriate tool at the most appropriate point in a well sequenced learning task

4.10 Rewinding the teacher

Historically, one of the limitations of most classrooms nationally, not just within IFtL, has been the capacity of the teacher, and/or the availability of adults in the room. This is partly a legacy of the 1:30 teacher to learner ratios seen across English classrooms (Brighouse & Waters, 2021), and partly because of the predominance of Individual Constructivism (see Section 3.5)

The limited capacity of the teacher – however flexible, creative and expert they are –has historically created a limit on the capacity of children to access instruction and intervention – both academically and pastorally particularly at the moment in time they most need it. However, at IFtL, the ubiquitous presence of 1:1 iPad provision has uncoupled this connection.

There are a range of ways that this has been addressed. In part, through the use of Socrative (Showbie Assessment) and other real-time, at-scale formative assessment tools (see section 4.12), and in part because of the provision of on-demand resource banks (i.e. the use of Showbie to make teaching materials and learning resources accessible for all students in a class). Digital resource banks are increasingly multi-media in schools, and one school has noted the rise in

accurate use and pronunciation of subject specific vocabulary following voice notes to model the reading of such tier 2 and 3 vocabulary (Beck, McKeown and Kucan, 2013).

> *"The provision of toolkits in all subjects within Showbie has enabled learners to access support independent of the teacher. More children are making use of the resources available without the need to ask an adult or move around the classroom."*
>
> *IFtL leader*

In addition, a number of examples of digital practice were seen where learners were able to 'rewind the teacher'. For example, in a key stage 3 design and technology lesson, the normalised classroom practice was that when a teacher gave verbal feedback to learners individually, the young person would use their iPad to make a voice note recording. That way, they could focus on the teacher in the moment of feedback and ask any questions, but then once the teacher had moved on to the next person, the learner could replay the feedback as they attempted to address the misconception or develop the learning challenge further. This was described by both students and teachers as increasing the proportion of feedback understood and utilised, and thereby increasing the rate of progress in activities, lessons and thus over time in terms of attainment.

Similarly, many classrooms in primary and secondary phases provided recordings of modelling or instruction through Showbie that learners could access, watch and re-watch on demand. Furthermore, examples were seen where misconceptions had been pre-empted and short instructional videos created so that the teacher could utilise their time identifying misconceptions and then signposting the support rather than repeating the same correction multiple times. These approaches appeared to free up teacher time to provide highly targeted support, with learners reporting that they spent less time waiting for the teacher and more time addressing misconceptions and moving on.

"In our school, we see rewinding the teacher used mostly in practical subjects such as art, DT, music, PE and science. It has real impact when techniques and processes need modelling multiple times and at slightly different pace for different learners. It means learners can revisit the modelling as often as they want to and they can select the exact moment of the direct instruction they decide to focus on."

IFtL leader

As one learner explained,

"my teacher doesn't talk to us as much about what to do next, he can focus on how to help us get better because our iPad helps with the stuff about what to do next".

Student classroom observation

Students across age ranges and subjects unanimously appreciated the efficiency of being able to 'rewind the teacher'. For example,

"The teacher in our SEND provision recorded herself telling the story of the 3 Little Pigs with the children. She modelled to the learners how to replay the video and emphasised the language in it. During snack time, two pre-verbal children used sign-language to ask to watch it again. They sat focused and watched again before acting the story out the story accurately."

IFtL Leader

Across IFtL schools, children recognised that the value of a teacher (to them) is in part about targeted intervention rather than generic task instruction, but also, that a teacher is better able to meet their pastoral needs (e.g. reassurance and co-regulation) through strong relationships if they

are using their capacity for personal, targeted interactions rather than repeated process instruction. One learner said,

> *"You can't replace my teacher with a computer, or a robot or AI and stuff, because they don't do joy! My teacher does joy and she smiles a lot!"*
>
> *Student classroom observation*

In turn, teachers spoke about the impact that these on-demand videos and voice-note instructions have on children's behaviour and classroom stability – reporting direct decreases in dysregulated children (both in terms of quantity and duration). Probing further, the view across teachers and leaders appears to be that by providing on-demand help and support in ways that are contemporary, accessible and consistent, students are less likely to spend valuable classroom time not knowing what to do or how to do it. Such moments of uncertainty for children, when they don't know what to do or how to do something – particularly for children with SEND or other vulnerabilities (e.g. undiagnosed anxiety, low confidence), are common triggers for dysregulation, behavioural incidents, emotional turmoil and anxiety. These issues are all indicators for problematic behaviour, reduced attendance and wellbeing – which, as leaders described, have all notably decreased in classrooms and schools with consistent, embedded, and high-quality provision as set out above.

Across IFtL, the number of suspensions in the learner population has dropped since iPads were introduced. This decrease has seen a proportionally significant drop across the whole trust (see Figure 13), but more markedly in the SEND population during the 2024/5 academic year when there was also an increased focus on the ways in which the digital tools support those experiencing the most barriers to their learning (see Figure 14).

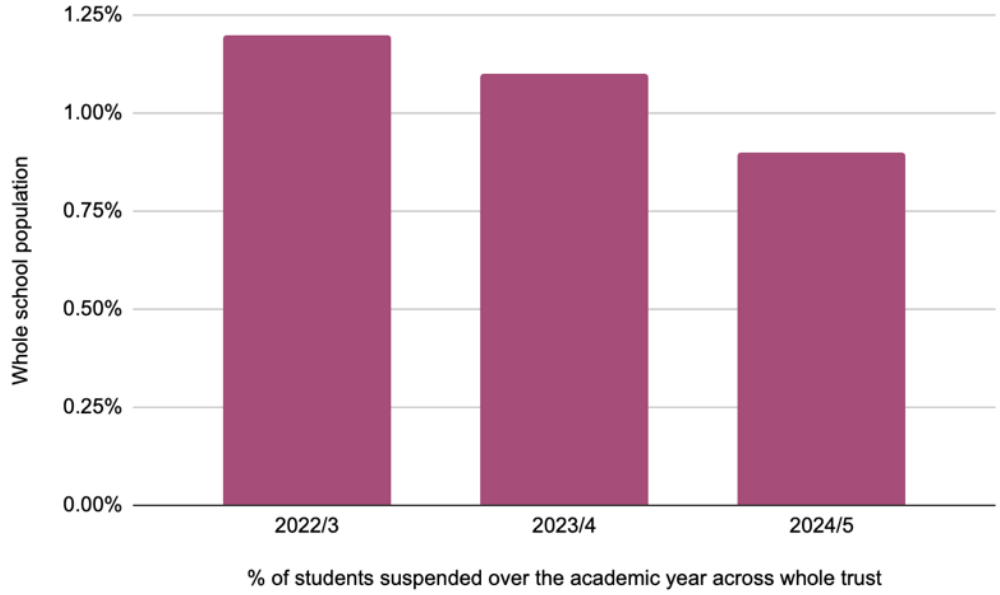


Figure 13: Number of students (shown as % of NoR) suspended per year

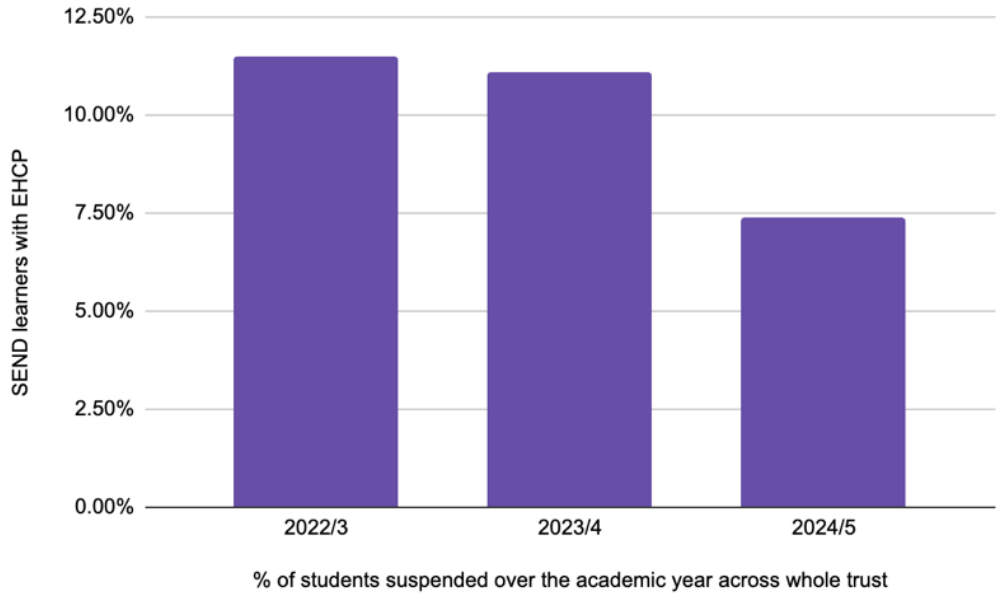


Figure 14: Number of students with SEND (shown as % of NoR) suspended per year

This is further exemplified in one of the IFtL schools who led the pathfinding approach to using specific iPad based tools as part of supporting reassurance, regulation and wellbeing. This included specific provision for children who struggle with regulation, and who respond well to parent voice. In these scenarios, the school had captured video of the individual child's parent talking to the camera (and therefore to the child) in a recording, and the learner was able to access that recording at the point of dysregulation. Teaching staff spoke extensively about the profound

positive impact this had on individual children's regulation, wellbeing and attitudes to school alongside, improving classroom calm for other children, and decreasing pressure and capacity in staffing. In this school, suspensions over the last 4 years are shown in Figure 15, with the decrease correlating with implementation of these strategies.

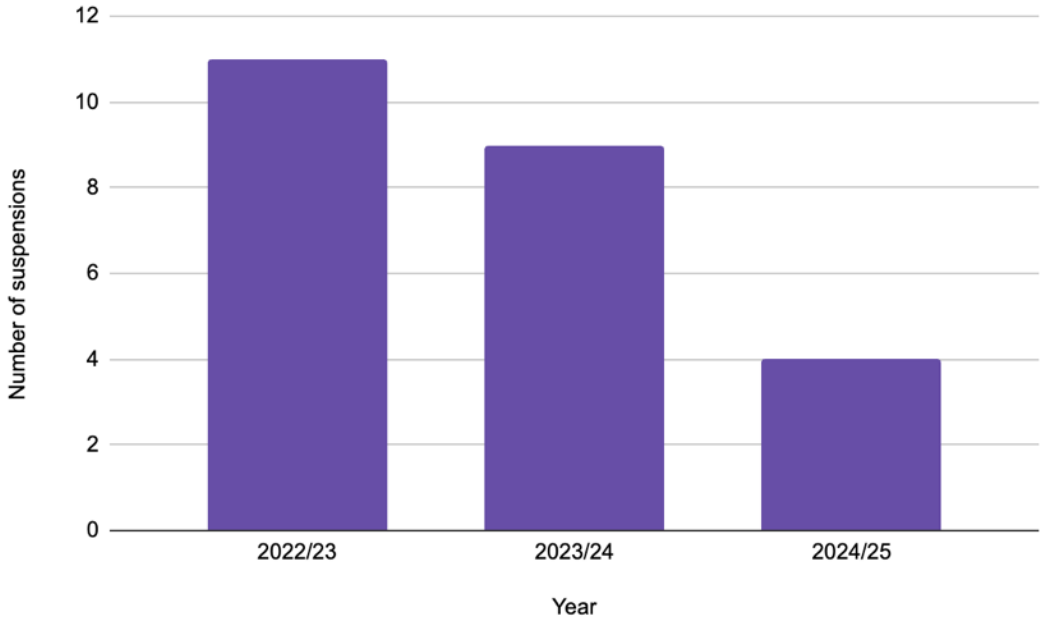


Figure 15: Number of suspensions (individual count) for school pathfinding the use of specific re-regulation digital tools.

The data outlined in Figures 13-15 suggests that there is a correlation between the deliberate use of iPad based tools to support re-regulation and reassurance, and an improvement in classroom behaviour as seen through a reduction in the number and nature of suspensions. However, within an education landscape, it is wise to display some degree of caution when simplistically comparing two variables. This can lead to a reductionist view – whereby complexity is over-simplified, leading to non-specialist misconceptions. Aubrey-Smith & Twining (2024) highlight the sector over-reliance on statistical correlations and surface level data – leading to practitioner beliefs that if variable (a) is adjusted then variable (b) will be automatically improved. There is a profound difference between *correlation* (where two variables change at the same time), and *causation* (where the change in one variable explicitly causes a change in the other variable). In the education sector this misuse of data often results in misapplication of findings and then later frustration where strategies don't necessarily create the same impact when adopted in different contexts. The outcome is usually that practitioners consequently disregard findings or attribute strategic failure to the strategy rather than professional misconception (Brighouse and Waters,

2021). It is therefore important to be cautious, and ethically responsible when forefronting findings such as those highlighted above. A correlation between specific use of iPad based tools to support regulation and a reduction in suspensions is headline-grabbing, but does not automatically create a case for all schools to invest in 1:1 iPads.

Instead, it is helpful to utilise correlational data to shine a forensic light on explicit aspects of practice – using this as an entry point for further investigation. The Unit of Analysis (Matusov, 2007), thus shifts from whole-school or trust-wide statistic, to individual student exposure, experience and impact. In the context of this study, the data in Figures 13-14 was therefore unpicked at student level – looking explicitly at which children were most vulnerable to suspension; the strategies that had been implemented to nurture their regulation and wellbeing; and the records that tracked their behaviour incrementally and over time. This more granular data supported the headline findings by providing explicit links between deliberate human and digital regulation strategies (as set out above), and the positive disruption of previous negative behaviour patterns. The relationship between deliberate planning for a fusion of human and digital behavioural and wellbeing support, and the impact on improved behaviour and therefore lower suspensions, can therefore be set out with a degree of confidence.

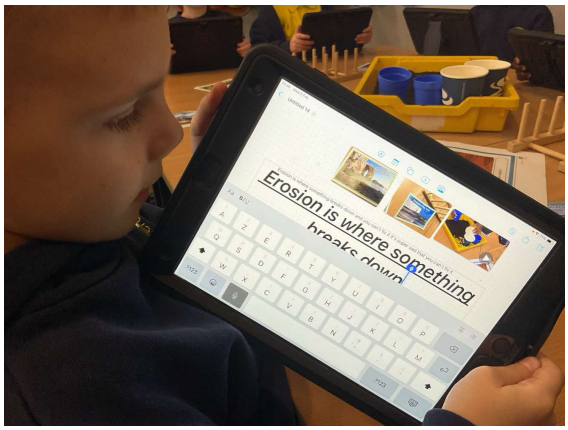
4.11 Supporting and Scaffolding Talk

The role of talk, oracy development, and the use of oracy to support wider learning in classroom contexts was a core line of inquiry as part of this study. In part, this has been influenced by reports from sociologists and mental health professionals who have shared concerns that individual device use can encourage individualised behaviours. This can be seen through both child and adult activity in a typical home environment. For example, historically, a family may have congregated around a shared television for shared watching, stimulating shared discussion (Erstad et al., 2024). In an environment where family members have individual devices and on-demand subscription models, it is now more common for each person to have their own personal viewing experience – removing much of the stimulus for conversation (Quian & Hu, 2024). Concerns about young people becoming isolated as a consequence of individual access to a device is therefore important to address.

The school context however, is different from a leisure, family or home context. There are some pedagogical intentions that require children to work individually. For example, where a child is required to record their independent work for the purposes of individual assessment, (e.g. tests, exams), it is appropriate for them not to engage with those around them. However, other pedagogical models actively encourage human interaction. For example, a focus group in this

study surfaced a wide ranging list of talk purposes including questioning, debating, challenging and extending ideas; orally rehearsing sentences or ideas before recording and drafting; verbal formative assessment or peer evaluation discussions; pastoral social skill development; re-regulation of self and peers within group or class environments; celebrating achievements and providing support during and after learning experiences; negotiating social dynamics and interactions; communicating with peers during team activities; public broadcasting and presentation. All of these require explicit guidance in order to most effectively learn techniques and strategies, practice and rehearse, problem solve and consolidate.

The use of talk partners or small group discussion activities, supported by digital tools, were explored across year groups and schools. Children valued the opportunity to talk with peers as well as the unintended consequences that talk activities often offer (e.g. not needing to sit still, opportunities for physical movement, and removal of whole-class visibility on individual performance). Observing a wide range of peer talk across year groups and schools surfaced at least two trends.



The first is that children benefit from orally rehearsing their ideas aloud before recording, editing and improving them. Historically, in most schools this has happened through the use of 'talk partners' with one child talking at the other child, then the roles reversing. Sometimes this process is enhanced with the listening child offering structured, targeted feedback, but more often than not the listening child plays a passive role to the talking child. In these scenarios, IFtL has taken a more informed and contemporary approach – encouraging children to record their talk, listen back and reflect, refine their ideas and then present to a peer, teacher or other audience.

The second trend is where talk is used to explicitly unpick an idea (e.g. addressing a misconception, challenge an opinion or offer an alternative perspective), or to develop an idea (e.g. stretch the parameters of a concept, build additional knowledge). In these scenarios, IFtL have again offered a more informed and contemporary approach.

For example, students (i) utilising task instructions, word banks/vocabulary, talk tactics, stimulus resources, idea or content reminders, and (ii) capturing shared output – e.g. a collaboratively produced video or audio recording, or collaboratively produced physical artefact created as a result.

> *"We made a video of our story that we made up in the castle toys. Then I watched our video and made a book of my story."*
>
> *Year 1 student in classroom observation*

Children across year groups and schools spoke about the ways in which they interacted with other children in their class. These included (but were not limited to), talk partners, small groups, and whole class activities. Children valued opportunities to work with a range of different children, even if that meant they were not necessarily always working with their friends. They recognised the value of working with specific children for the purposes of subject-oriented tasks or collaborative outcomes and were consistently able to talk about the differences between people they may enjoy being with, and people who may support, extend or enhance their learning. Children often spoke about the role of digital as helping this process – enabling them to work in pairs or groups across a class or year group both with and without the need to physically sit with / be located next to those children. Importantly, children described the benefits of sitting next to (or working with) some peers for reassurance, whilst working digitally with others for academic/subject/skill development. Digital tools allow for children to benefit from collaborating with one set of people whilst being physically located with another set of people. This opens up choice for both learners and teachers to think in a more nuanced way about how pairs / groups are allocated.

4.12 Real-time, whole-class, formative assessment

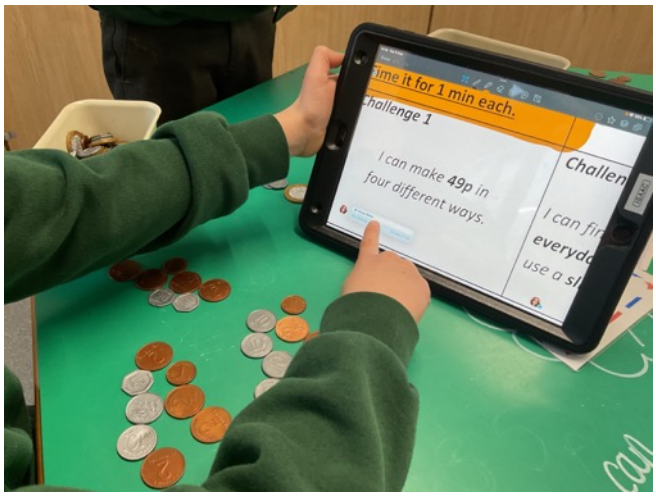
Across year groups and schools, formative assessment tools including Socrative (Showbie Assessment) and Learning by Questions (LbQ) were used widely for a number of different reasons. Primarily, these tools which, when used as a part of the 1:1 iPad provision, allow children to answer targeted questions individually, giving teachers visibility on whole-class results heat-maps. These scalable, real-time formative assessment tools form part of a sophisticated adaptive teaching strategy across IFtL schools, facilitating more targeted responses and interventions. Classroom observations, supported by focus group and interview data revealed that teachers found that these tools offered greater precision in their decision making during direct instruction, intervention planning and in-class support.

Using traditional methods for eliciting whole-class real-time response insights (e.g. hands-up, wipeboards, hand-held resources), a teacher would have attempted to visually analyse 30+ responses in a timeframe of about 5 seconds per question. Furthermore, once a second question was asked by the teacher, previous response data would usually have been removed (e.g. hands go down, wipeboards are erased). In any school, even the most skilled of teachers is unlikely to remember 30+ learner responses for each individual question over a series of 5-10 questions. This consequently creates a Halo Effect illusion (Hattie, 2020) whereby historically, teachers base their decision making on *assumptions* that most (or all) learners conformed to one of a set of trends or patterns. The teacher would historically then use those overarching trends to inform consequent professional practice or classroom actions.

"If the teacher is asking us a question, why can't I answer it straight away, and quickly?"

Student, classroom observation KS3

However, contemporary digital tools – including Socrative and LbQ as used by IFtL - allow for whole-class real-time responses to be collected, collated, analysed and presented through a dashboard. This automates some of the analysis that a teacher is expected to do in real-time - freeing up teacher's cognitive capacity and bringing greater levels of accuracy to the response insight. For example, auto-checking individual responses (right/wrong marking), collating data across responses (e.g. changes to accuracy levels as challenge increases, common misconceptions based on question type), collating data across learners (e.g. changes to accuracy over time reflecting familiarity), number of attempts at answering a question (e.g. reflection of confidence). These are all valuable sources of data for the teacher to use for individual, group and whole-class adaptations, but incredibly difficult to gather and store in real-time for a whole-class without the use of digital tools. Traditionally, the time a teacher spends reviewing learner's work is largely focused on marking and feedback. In a contemporary IFtL landscape where much (but not all) of this can be automated



and presented as a series of insights or themes, focus groups and interviews suggested that the teacher's time was repurposed towards planning for the next lesson or intervention.

Most children spoke about their appreciation of auto-marked feedback so that they did not have to wait to find out if they were right or wrong (for both reassurance and encouragement). Children also spoke about the way that these tools provided significant teacher benefit – with their teacher not having to mark work individually and therefore having more time to talk to them to provide personal support. In both cases, children were very aware of the role that automated tools can play in moving teacher capacity from administrative or repetitive tasks towards more personal, human oriented forms of educational support. Children were very aware of the time demands and pressures facing their teachers – and see contemporary digital tools as important ways of addressing this problem for everyone's benefit.

> *"Why does the teacher only want answers from some children, not from all of us?"*
>
> *Key Stage 1 Child*

Most children found digital formative assessment activities (e.g. quiz style activities) encouraged them to be more active and task-focused when used for short burst and highly targeted learning curriculum tasks. There was one exception to this where on rare occasions children used competitive retrieval practice based digital quiz games (e.g. for times tables practice). In most instances, this appeared to benefit the children who were already secure in their multiplication knowledge (and who therefore topped the speed and accuracy leaderboards and thus revelled in the success). Established theories posit repeated retrieval practice as highly effective in strengthening high speed and accurate recall of specific knowledge. This makes timed and gamified times tables games highly effective preparation for DfE's Multiplication Checks (DfE, 2020). However, Hong et al., (2019), highlight that aspects of the context that are not essential to the retrieval of an item are not strengthened by retrieval practice. In this scenario, an understanding of multiplication is therefore not necessarily strengthened by consistent retrieval of multiplication facts. In other words, children may be highly effective at recall and therefore achieve strong MTC test results, whilst simultaneously not understanding the process of multiplication and therefore being unable to identify where, when or how to solve real life multiplication problems.

In addition, children who were not yet secure in their multiplication knowledge found these activities to be a cause of high anxiety and in some cases distress – where they knew they would not 'win' on the leaderboard, and so the task set them up to perceive failure from the outset. Klier and Buratto (2020), highlight that this kind of stress typically impairs memory retrieval as a result of a flood of cortisol interfering with hippocampal function. Therefore, whilst well meaning, these kinds of activities demonstrate the importance of clear pedagogical intent – timed and competitive activities are likely to only be beneficial to learners who have already secured the knowledge required to compete (i.e. the pedagogical focus is on increasing pace, rather than increasing knowledge).

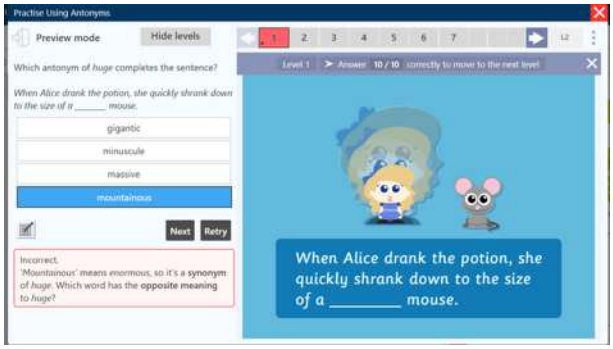
Within the context of adaptive teaching, the role of teacher questioning is vital. When children across IFtL schools were surveyed, there were clear preferences about how children wished to respond, as seen in Figure 16.

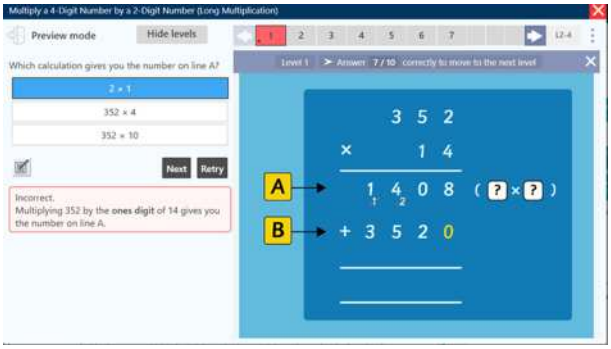
Figure 16: Children's preferred way to respond to teacher questions during whole class activities

However, the ranking order was slightly different when teachers were asked the same question – (Figure 17), with children answering questions verbally in front of the whole class ranking first for teachers, but only third for children.

Figure 17: Teachers preferred way for children to respond to teacher questions during whole class activities

These responses were probed further, with children asked to indicate how they would prefer to find out if they were right or wrong when asked a question during a whole class activity. In a sample of 2,668 children, 37% preferred to receive auto marked responses through their iPad and 21% preferred their teacher to mark their book. Notably, a very similar 17% preferred to wait for a teacher to talk to them individually and 15% preferred the person (peer) next to them to mark their work. Segmenting this data further by year groups and subjects, and triangulating with focus groups and classroom observations suggests that trends are influenced by age (e.g. EY/KS1 children prefer teacher feedback either as voice note or through individual discussion, whereas KS2 and above students prefer more automated processes). However, layered over this is subject variance, where some subjects are seen as more appropriate for automated feedback (e.g. science, maths, SPAG, some humanities – where there are right/wrong responses), whereas other subjects (e.g. creative writing), do not lend themselves to automated feedback in quite the same way.





As a key stage 2 child explained,

> *"I like the hints in LBQ because if you get it wrong, it gives you a hint to try and help you get it right. If I still can't do it, I ask a learning friend or a grown up for help. It means I don't practice things wrongly so I can do more learning in my lessons. I don't mind knowing when I get things wrong because that helps my learning."*

It was very clear that the use of digital tools was seen by both teachers, leaders and children as highly impactful where they co-existed alongside teacher-child, and child-child interaction and subject specific oracy and pedagogical approaches. In maths for example, this includes the use of concrete resources to develop conceptual understanding.

Schools across IFtL spoke about the role of Socrative quizzes in terms of enabling teachers to analyse data more frequently in order to understand how secure children's knowledge is; identifying gaps and addressing misconceptions swiftly during and between lessons. Leaders spoke about this triggering a greater focus on formative assessment and consequent adaptive teaching - a swifter 'keep up rather than catch up' culture. Leaders referred to real-time, detailed, accessible digital data being central to this process – enabling teachers to make 'in the moment' adjustments and adaptations to provision and practice. For a school where this was a particular priority, leaders attributed the real-time, whole-class, formative assessment approach, as supported by digital tools, with attainment increases data rise in both Grammar, Punctuation and Spelling (GPS) and maths (Figure 16).

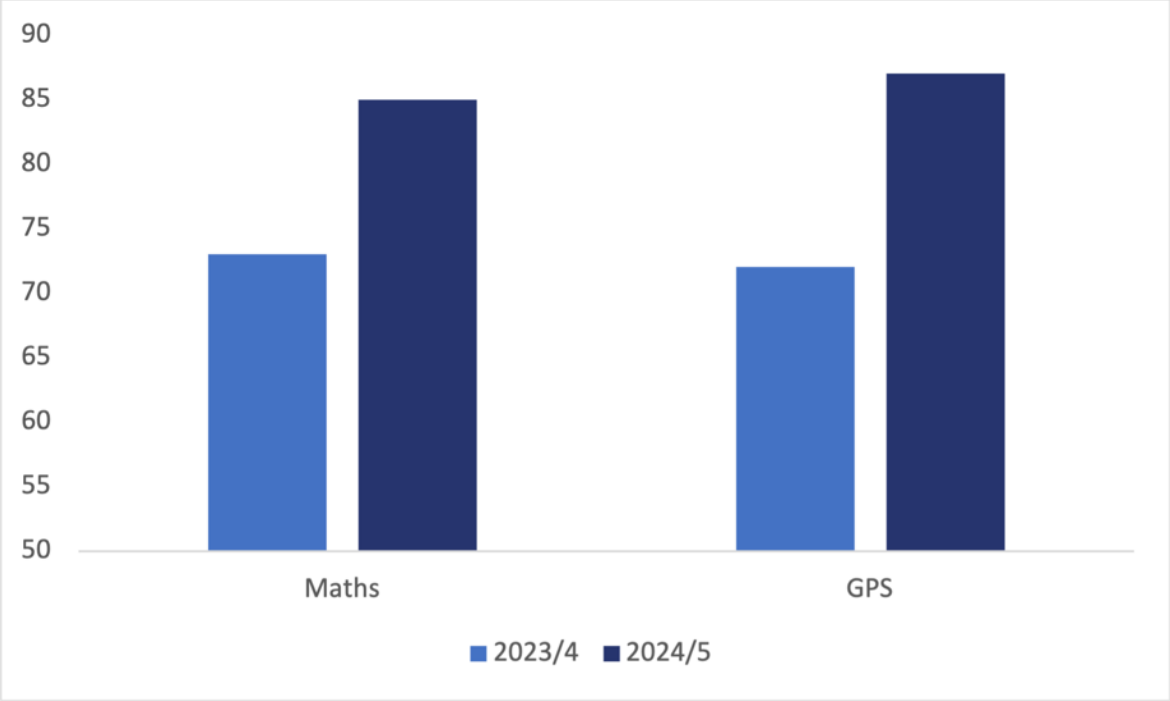
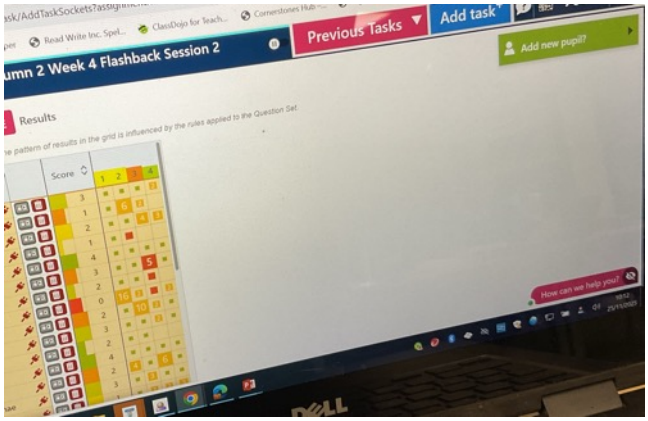


Figure 16: Proportion of children achieving expected or higher standards in Grammar, Punctuation and Spelling and Maths (shown as % of NoR)

Across IFtL schools, the use of LBQ and Socrative quizzes which automatically mark children's work has enabled teachers to provide support to the children who need it the most in the areas that will make the most difference to them. For example, in Year 6 maths lessons, learners who have demonstrated high attainment are stretched and challenged through further reasoning problems. Digital tools have been used to provide personalised pathways and a faster pace or more challenging stretch. Digital platforms have provided instructional guidance, allowing the teacher to use their capacity to give support, feedback and modelling, based on the questions children have got incorrect, rather than children waiting for teacher direct instruction in order to get started.



Similarly, in first schools, outcomes for art and design technology have improved due to learners capturing learning and evaluation digitally at each step of the creativity process rather than just at the end of an activity. Photographs and voice notes have been used reflectively by learners at each step of the creation as part of a low-stakes formative assessment cycle. Learners and teachers work together to use those formative reflections to plan provision, resources, and actions for the next step of the project. Due to the collaborative reflection-planning cycle, leaders commented that this made the next stage of the project more focused and consequently demonstrated significant improvement and progression between lessons.

4.13 Wellbeing, Reassurance and Regulation

There were a wide range of examples where digital tools were used to provide children with reassurance or to support their regulation. For example, short videos of mindfulness activities, a familiar family member talking to a child to support re-regulation, resources that children had made for themselves to help identify how they feel within the four Zones of Regulation (Kuypers, 2011), and the use of sounds and music through headphones to support focus,

concentration and self-regulation. Classrooms that encouraged the autonomous access of these tools and resources often correlated with children who spoke in more confident terms about their learner identity and their understanding of their own learning processes (metacognitive skills).

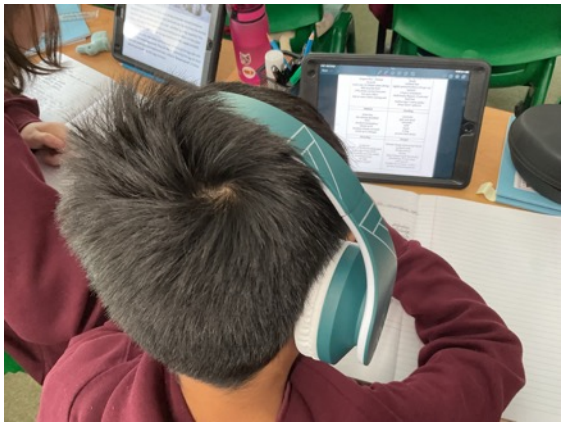
In one example, parents worked with the school to support their child who found emotional regulation challenging at times. Parents recorded a reassuring video for the child which was saved on his iPad and accessible to him whenever he needed it. This led to a reduction in time dysregulated, increased learner, teacher and leadership capacity and a reduction in suspensions. The child's time in school increased and his ability to engage in learning effectively also increased leading to him passing his Phonics screening in Year 2 which had not been thought likely.

In another school, a culture of agentic use of headphones was observed with learners making decisions and articulating how headphones were supporting them. Learners commented on digital tools associated with audio features and headphones were supporting them to regulate and stay engaged and focused on their learning.

"I get thoughts and ideas that crash into my brain [while I'm trying to focus], and if the ocean sounds are on [through my headphones] they keep away better and I can concentrate"

Year 5 child

Increasing adaptive provision became something more easily attainable through the use of Showbie - to distribute resources that individual children need, and through the use of Generative Artificial Intelligence tools to support resource preparation. For example, some schools had developed personalised knowledge organisers for foundation subject topics and distributed them with dignity to provide personalised pathways. Children benefitting from this personal provision saw a decrease in recorded low level disruption (e.g. Year 6 learners with SEND saw behavioural logs reduce by 22% over a term and for one learner the number of recorded incidents dropped from 11 to 4 in the same time frame).



Personal toolkits were also found to be impactful across age ranges. For example, a key stage one child benefited from a personal toolkit set up on the iPad for them and this action was perceived by leaders as triggering a change from 19 physically aggressive incidents towards other children in autumn 2024 down to 4 in autumn 2025. Leaders noted that the bespoke tools on the iPad and

– vitally - the agency the child had in choosing when to utilise the tools, were a core influence in the reduction in dysregulation. In addition, as a 'ripple effect' of the reduction in behavioural challenges, the teachers, leaders, support staff and other learners saw a noticeable increase in their classtime capacity – for learning, and for supporting learning.

It is of note, that in some schools, parents and learners have commented on the wellbeing strategies children have learnt using their iPads are of benefits outside the school context and particularly at home. One child commented during the study that

> *"I use them lots to help me at home especially the yellow zone. It helps me feel calm and I talk to my teacher about it. It helps me and my family".*
>
> *Year 6 learner*

The portability of digital tools to move with children between classrooms at school, and contexts outside of school (e.g. home), is an often unseen influence. Where children are explicitly provided with specific strategies and tools in school – learning the skills, behaviours, expectations and etiquette associated with using them – these are regularly seen being applied in a home environment. This is perhaps a vital part of the codification of the ingredients to impact seen across IFtL. Where tools are introduced, this happens in conjunction with discussion about expectations, behaviours, contextual culture and most importantly, agency and knowledge to know when and where the tool is appropriate and impactful to use. If these insights and expectations are not provided and reinforced from the outset – at home or school – then the tools can become misused, not used, or problematic in environments which do not have that understanding.

4.14 Capacity for Learning

As part of classroom visits, observations, survey data and teacher interviews, a range of insights were gathered that explored the use of time during lessons. The purpose of this was to understand the relationship between pedagogical intention, use of capacity and choice of resource or tool. Similar studies elsewhere have identified that the digitisation of everyday classroom activities creates approximately 23% additional capacity for learning time, with the greatest impact seen on productivity when learners capture evidence of learning, and in the transitions between activities.

Through a focus group with IFtL's Future Ambassadors, a list was created of typical classroom activities that spanned across subject specialisms, key stages, school contexts and catchments.

This list was then used as a stimulus for targeted specialist observation and timed task activity – surfacing the proportion of potential lesson time used to introduce, prepare, carry out, transition on from, and tidy away typical activities.

> *"We noticed reduced 'slippage time' in lessons for example not having to hand out exercise books, sticking in things, resources available etc. and this time was being invested immediately into engagement with learning."*
>
> *IFtL Leader*

Table 3 shares aggregated data which combines timings (in minutes and seconds) of teachers and learners carrying out specific activities before, during and after lessons, that are specifically related to a single activity. The single activity tracked is one which had a paper based and digital equivalent – e.g. a paper based or digital retrieval task, and so data relates only to those activities, not to the multitude of other things taking place in the classroom concurrently. Figures are shown as percentages of the teacher time or learner time, with green indicating which version of the activity (paper or digital) is the most time efficient in relation to where Future Ambassadors felt teacher time should be spent.

Aspect of Activity	**Paper based version**	**Digital version**
Pre-lesson		
(1a) Formative assessment	4%	1%
(1b) Lesson planning	16%	4%
(1c) Lesson resourcing	22%	6%
(1d) Classroom setup	7%	4%
During Lesson – Teacher Time		
(2a) Teacher input	9%	6%
(2b) Resource allocation	9%	6%
(3a) Teacher task management	4%	1%
(3b) Teacher learning intervention	2%	4%
(4a) Transition out of activity	19%	16%
(4b) Tidying up	8%	4%
During Lesson – Learner Time		

(5a) Cognitively on task	79%	82%
(5b) Functionally on task	8%	10%
(5c) Functionally off task	4%	2%
(6a) Tidying up	4%	1%
End of Lesson – Teacher Time		
(6b) Marking	6%	1%
(6c) Planning next lesson	23%	10%

Table 3: Aggregated data which combines timings (in minutes and seconds) of teachers and learners carrying out specific activities before, during and after lessons, that are specifically related to a single activity

Across the aggregated dataset, it is notable that teachers spend proportionally more time cognitively engaged with the learning task than the learners themselves when the task is paper based (i.e. combining formative assessment, planning and resourcing the activity, teaching input, learning interventions and post lesson marking and formative planning). When this is compared to digitised ways of working, the balance shifts the other way, learners spending 11% more of the total time attributed to the activity than teachers.

However, this analysis is not intending to argue for the digitisation of all classroom activities. The choice of paper based, physical object oriented, or digitally supported classroom activities is part of a broader pedagogical landscape, and the focus must remain upon the underlying pedagogical intention. There are some scenarios where efficiency and productivity are vital, and there are other scenarios where reflection enables consolidation, slow pace encourages creativity, and off-task activity gives space to counterbalance cognitive focus. The point is that insights such as those above help teachers to reflect upon where they *want* children to spend their time and energy during lessons, and this is often something considered only at high level rather than in granular detail. For example, children in classrooms beyond IFtL were very aware of the time that they spend waiting or listening – for their teacher or for peers, and they often spoke about this with frustration. There is of course a social skill to learn whereby we must all wait patiently for others in different contexts, and so sometimes waiting is beneficial to children's learning (e.g. hearing a diverse range of ideas beyond those in their social group), but sometimes the levels of waiting in classrooms encourages passivity or distraction. Furthermore, according to Galea (2024) it is likely that the pairing of active listening (e.g. listening to a teacher talk with an expectation of being asked questions) with passive physical activity (e.g. sitting still at a desk) appears to create an unnecessary cognitive fatigue for Generation Alpha (i.e. children in primary schools) and Gen Z (i.e. children in secondary schools). Classrooms where children are culturally compliant mask this cognitive fatigue because children are well behaved and conform to expectations (Nutall, 2007).

Classrooms with lower cultural compliance (e.g. more challenging needs or behaviours), may therefore actually benefit from evolving to give greater agency to children over their learning – within clear, safe and structured parameters (e.g. using the approaches set out by IFtL in this report).

During classroom visits and observations across IFtL, many examples were seen which provided children with visibility on the information and direction that they needed to self-manage their own progression, but within clear parameters and underpinned by a culture of high expectations. For example, the use of Challenge Cards (EY, KS1) which set out explicit learning intentions and curriculum coverage presented as specific tasks and underpinned by scaffolds which enabled very young children to independently and purposefully complete particular activities. For older children (e.g. KS2), Showbie was often used in a similar way – giving visibility on curriculum maps, knowledge organisers and progression documents, such that children understood their curricular learning journey over time, as well as within individual lessons or units of work.

In each case, the role of digital tools in supporting, extending and enhancing provision was both explicit and impactful. The mobility of iPad use enabled children to move between activities (e.g. in science labs, DT workshops, Food technology kitchens, Early Years workspaces), to access task, unit and lesson specific materials and activities, to capture evidence of their learning in multimodal formats, to access help and support materials on-demand at the point of need, to review their learning as part of a self-assessment cycle, and to submit their work for automated marking or teacher assessment. Crucially, this is not just about moving between tasks whilst remaining seated or in the same location, but about moving around physical environments (e.g. classrooms, labs and workshops, kitchens, indoors and outdoors) - utilising more of the school estate. The importance of this physical movement on the physical and mental health of children should not be underestimated, and is likely to significantly contribute to cognitive focus and creativity (Oppezzo, 2014), knowledge retention and retrieval (Webster et al., 2015), the synthesis of ideas (Ratey & Hagerman, 2008), and a sense of belonging (Wiltermuth and Heath, 2009).

4.15 Paper v Digital - Costs

When considering digital versions of tasks which were historically paper based, it is helpful to consider not just the impact (e.g. Sections 4.2-4.12), but also the associated financial considerations. Across IFtL, the total cost of the 1:1 iPad provision, including devices and associated accessories, infrastructure, connectivity, training, subscriptions and licences is approximately £17 per pupil per month (with some licensing over a 4-year period). This was found to be roughly comparable to the historical costs of exercise books, photocopying, and glue (£240

per year), suggesting that, while the digital costs do not replace the historical costs completely, the initiative is financially sustainable while offering superior educational versatility.

Through focus groups with classroom specialists representing a range of schools, subjects and year groups, each pupil historically (pre iPad) used an average of 16 exercise books per year. Of these exercise books, approximately 60% of pages were likely to have some kind of photocopied resource stuck in with glue (e.g. success criteria, word bank, worksheet), creating a total cost (including exercise book, photocopying and glue) of approximately £240 per child per year – nearly comparable with the total cost of iPad provision.

In addition, classroom specialists were also asked about other photocopied resources that were used historically, that were no longer used as part of classroom provision (e.g. sheets for children to cut and sort or match, photocopied pages of texts, worksheets for annotating, test booklets etc). Teachers now have opportunities to make finer adjustments to teaching and learning materials, sharing more nuanced resourcing with learners. The total number of A4 pages saved in IFtL though the increased use of digital tools was calculated as being roughly the same height as Queen Elizabeth tower (housing Big Ben) at the Houses of Parliament, suggesting significant benefits financially and environmentally, as well as through the nuanced improvements to learning and teaching set out in this report more broadly.

A summary of typical paper-based tasks used historically can be found in Table 4. Throughout this study, classrooms ranging from Reception through to Key Stage 3 were increasingly observed utilising a careful blend of paper sheets, exercise books, text books and digital tools to ensure that learners spent their classroom time focused on cognitive growth rather than copying out pre-existing material, and that they had the most appropriate resources and structures to develop both handwriting skills, practical skills and digital skills – all of which were being viewed as essential for being an active contributing contemporary citizen.

Fully handwritten tasks in exercise books or on paper	Tasks with photocopied or printed material stuck into exercise books
Narrative Mindmaps Lists (numbered and bullet point) Playscripts Drawings (to accompany writing), with and without captions Vocabulary lists / word banks Dictated sentences Calculations	Matching (e.g. words / sentences with images or other phrases) Extracts of text Summaries Templates (e.g. of mindmaps, drawings without captions) Photographs (e.g. of a storyline; STEM or humanities stimulus; of the learners acting or doing a task) Photograph or copy of a shared piece of writing Checklist / Success Criteria Sample of text / Photo of a book cover Knowledge Organiser Worksheets for completion Targets Speech bubbles to be completed Lined paper template with a stimulus or key information at the top or bottom

Table 4: Summary of paper based tasks used historically across IFtL schools

4.16 Professional Culture

Sections 4.1 - 4.13 have set out a wide range of uses of digital tools by the children and teaching staff across IFtL schools, along with a range of insights into the impact that this has had on outcomes – demonstrated in terms of both qualitative and quantitative evidence. Whilst this report focuses predominantly on learners and learning (often via teachers and teaching), it is important to highlight the parallel cultural shift that has been observed across IFtL's professional staff. For example, teachers and leaders talk fluently and confidently about the ways in which they use their iPads and digital tools to support their workload in terms of time-efficient resource preparation, marking, planning and assessment. Furthermore, their increased collaboration with other staff – with teachers and leaders referring to co-planning; resource sharing; co-creating policies, letters and curriculum documents.

A number of practices also permeated professional learning contexts. For example, the use of QR codes in meetings for attendees to access shared folders where they then contributed materials

for the benefit of shared discussion and group work, or shared drive spaces where documents were co-constructed as part of collaborative professional learning or research workshops.

The fluidity with which staff were able to use these tools as learners themselves, was highlighted as a critical component of increased confidence in understanding classroom application. In other words, if a teacher experiences a tool when they are learning, and then practices in that low-stakes environment in context (i.e. as a learner, not just in a training session), they experienced greater confidence associated with the tool and its relevance or purpose. This contextual understanding about how the tool directly supports, extends or enhances learning is vital as it embeds a pedagogy-first approach to the use of digital tools throughout a professional's experience. As one leader described it,

> *"we are walking the walk – using these tools to help our learning, our thinking, and our work together. It makes it so much clearer about how they can be used with our children in ways that we already know will make an impact"*
>
> *IFtL Leader*

4.17 Codifying components of impact

Through this report, Section 3 set out a detailed narrative about the trust-wide approach to introducing a pedagogy-first approach to the use of digital tools as part of a contemporary learning toolkit. Section 4 then set out the impact that this approach has made on a wide range of variables.

Reflecting upon aspects where there has been clear evidence of significant impact, three stages have been observed and codified which provide a fast-track route for onboarding additional schools as well as contributing to broader system leadership for other schools and trusts looking to achieve similar forms of impact in their own schools.

Phase 1 - Foundational Digital Competence

A basic level of teacher digital competence is required in order for teachers to feel confident with bringing digital tools into a space that they are accountable for (i.e. their classroom). At IFtL, all staff are required to complete 'The Teacher Passport' - demonstrating basic digital literacy *before* devices are deployed to their children and classroom. This approach builds device and tool specific familiarity, introduces trust and school expectations and processes, and reduces fear and early troubleshooting issues for each individual. There is a clear expectation that until staff have these skills in place, the students should not receive devices.

Phase 2 – Beginning with a pedagogy-first approach

Once digital literacy is established, the focus must shift immediately to pedagogy. This avoids the digital tools being used inappropriately and avoids the technology becoming a "waste of time" both financially and for valuable human capacity. Clear, relevant and evidence informed pedagogical approaches are used – with digital tools supporting, extending or enhancing non-digital forms of practice. Crucially, conversations have evolved to also include clear expectations about when digital tools should *not* be used (e.g. not for reward, entertainment, gamification, to isolate a learner or to replace valuable human or physical interactions). The goal is to move from "how to use the tool" (digital skills) to "when to use it appropriately" (impact on learning)

Phase 3 - Strategic Leadership & Capacity Building

IFtL has a small central team with the majority of its leadership being distributed across the schools within the trust. This model relies heavily on distributed leadership, collaborative working and coaching. Each school has as Future Ambassador who is responsible for operationalising the strategic leadership of a contemporary approach to learning and teaching. This leader may work alongside (or also be) the Teaching and Learning Lead for that school. Train the trainer approaches and a strong reflective focus on the 'why' leads to the building of expertise, capacity and, crucially,

agency in leaders in schools to make pedagogical decisions that benefit the learners learning and living in contemporary classrooms. The use of digital tools is seen as an integral part of contemporary, high impact teaching and learning, and as such, colleagues work together to ensure that digital solutions are part of leadership and coaching conversations at all levels – embedding practice across subject and curriculum leadership, inclusion, and staff development.

5.0 Conclusions

This report has attempted to provide a summary of both the journey that IFTL have taken, and the impact that has been achieved, as a result of a pedagogy-first approach to digital technology across 20 schools.

Across the full data set from this year long research study, it is clear that the use of digital tools has magnified existing pedagogy – often revealing deeper beliefs about the role of the teacher, the role of the school in a child's life, beliefs about inclusion, dignity and equity, and about the purposes of curriculum and assessment. Digital has often served as a stimulus for conversation, thinking, reflection and the evolution of practice, but it has ultimately been an enabler for closing the gap between pedagogical aspirations and intentions, and realities of classroom practice.

What has also been very clear in this impact study have been the views shared by children – who nearly always have a far more precise understanding of the impact (both positive and negative) of classroom interventions, than conventional research and school student voice bodies recognise. Hypotheses and insights shared by students were nearly always supported by data from observations, attainment, surveys or focus groups with other stakeholders – evidencing the importance of learner voice in future research. The key message from learners of all ages and sitting across all learner characteristics is that digital tools offer a worthwhile and helpful addition to their learning toolkit – when used purposefully, meaningfully, and in contexts that forefront dignity and accessibility.

Children do not wish for all their learning to take place through the use of iPads, nor do they wish for all their learning to take place at desks nor on paper. Their voices strongly argue the case for blended, flexible, healthy and active learning experiences – allowing them to exercise both their minds and bodies; to strengthen both their skills in independent and collaborative working. Vitally, enabling them to learn skills for life (digital and behavioural) – that they can apply in today's classroom, at home this evening, and supporting their future education and career development.

For IFtL, the role of the teacher, and the experience of a learner continue to evolve. As a pathfinding trust – one of the few with a fully embedded pedagogy-first digital toolkit in place for all learners - the landscape is continually changing, as professionals across IFtL's schools continue to experiment, reflect and refine practice. What is clear however, is that when the focus of a digital strategy starts with a clear commitment to learners and improving their learning experiences, impact on learning swiftly follows.

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7.0 About the authors

Dr Fiona Aubrey-Smith EdD MA(Ed) MMus PGCE BA(Hons) FCCT FRSA FHEA

Named by Education Business as one of the 50 most influential people in education (2025), Dr Fiona Aubrey-Smith is an award-winning teacher, leader and academic with a passion for supporting those who advocate for children and young people. Fiona is the Founder of One Life Learning — an independent strategic research consultancy that focuses on the experiences and internalisations of learners in today's schools. She works closely with schools, professional learning providers and those providing resources and support to schools — championing the case for a pedagogy-first approach to thinking about contemporary classrooms. Alongside this, Fiona is a PhD and EdD research supervisor and examiner, working across a number of universities. She also sits on the board of a number of multi academy and charitable trusts, and co-founded the National PedTech Partnership. Co-author of the best selling book From EdTech to PedTech: Changing the way we think about digital technology, Fiona is a Founding Fellow of the Chartered College of Teaching, has been awarded Fellowships by RSA, NAACE and the HEA. In 2023, Fiona was granted Freedom of the Worshipful Company of Educators and in 2024 granted Freedom of the City of London. In 2025, Fiona was named EduFuturist of the Year, and recognised internationally by Higher Education Research and Development (HERD) for co-leading research concerned with deepening understanding about the development of knowledge.

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Sarah Hand MA(Ed) PGCE GradDipPhys

Sarah Hand is a highly experienced school and system leader, researcher and champion of learner and teacher agency. As Head of System Leadership at IFtL, Sarah leads the Learning and Development (CPD) offer for over 1,200 staff across the Trust as well as through an extensive portfolio of outreach. Sarah designs system leadership approaches which build sustainable capacity and expertise whilst nurturing professionals as learners themselves – ensuring equity, dignity and challenge sit at the heart of education development. Sarah champions evidence-led professional learning, speaking about the importance of research and professional reflection at local, regional and national events and through her role as Vice Chair of the EdTech Queen Street Sub-Group. Sarah is known for the thoughtful way in which she combines her extensive educational expertise with positive challenge and a nurturing style. Her work leading Digital Learning at IFtL has taken a pathfinding approach, placing the interaction of pedagogy and digital at its heart and vitally, pivoting around the needs and aspirations of children and young people.

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Appendix A: Research Team

The research team consisted of:

An independent academic lead researcher - Dr Fiona Aubrey-Smith

The Head of System Leadership at IFtL (co-lead researcher) - Sarah Hand

4 Executive Leaders (IFtL education team / specialists)

- Mel Saunders: Head of School Improvement, IFtL
- Isabel Parker: Early Years School Improvement Lead, IFtL
- Kim Kemp: Head of Quality Assurance & Inclusive Education, IFtL
- Victoria Blackmore: Head of Safeguarding, Health, Children and Families, IFtL

24 School Leaders (Head Teachers and Deputy Head Teachers)

- Jamie Ainscow: Head Teacher of Ashbrook School
- Becky Skillings: Head Teacher of Chestnuts Primary School
- Katie Robbins: Deputy Head Teacher of Chestnuts Primary School
- Hannah Crawford: Co-Head of Exeter A Learning Community
- Kelly Cursley: Head Teacher of Fairfields Primary School
- Emily Castle: Deputy Head Teacher of Fairfields Primary School
- Matthew Shotton: Head Teacher of Glebe Farm School
- Thomas Rowland: Head Teacher of Heronsgate School
- Kirsty Outtram: Head Teacher of Heronshaw School and Heronshill
- Jess Elford: Head Teacher of Holmwood School
- John Billing: Head Teacher of New Chapter Primary School
- Sarah Armitage: Head Teacher of Olney Infant Academy and Lavendon School
- Richard Bosworth: Head Teacher of Olney Middle School
- Tess McQuade: Co-Head of School for Priors Hall A Learning Community
- Nicole Bramwell: Head Teacher of Rickley Park School
- Angela Chiltern: Deputy Head Teacher of Rickley Park School
- Adam Palmer: Head Teacher of St Mary and St Giles C of E
- Cath Hoskin: Deputy Head Teacher of St Mary and St Giles C of E
- Hayley Cook: Head Teacher of St Mary's Wavendon
- Lucy Eldridge: Head Teacher of Two Mile Ash School
- Sophie Haycock: Deputy Head Teacher of Two Mile Ash School
- Linda Kelly: Head Teacher of Whitehouse Primary School
- Kate West: Head Teacher of Woodnewton A Learning Community
- Kate Harle: Deputy Head Teacher of Woodnewton A Learning Community

10 Classroom Specialists (Teaching and Learning Leads, Inclusion Leads)

- Harry Barwell: Deputy Curriculum Lead of Priors Hall A Learning Community
- Sophie Darling: Future Ambassador and Curriculum Lead of Olney Infant Academy
- Sarah Evans: Future Ambassador & T&L lead of Lavendon School
- Samantha Ward: Assistant Head and Future Ambassador of Glebe Farm School
- Kelly Winsborough: Assistant Head Glebe Farm School
- Charlotte Brazier: Assistant Head Teacher of Priors Hall A Learning Community
- Kelly McKee: Assistant Head of Exeter A Learning Community
- Melissa Rees: Curriculum Lead and Ed Tech Intern of Fairfields Primary School
- Leonnie Martignetti: Assistant Head Teacher & Future Ambassador of Whitehouse Primary School
- Clare Fisher: Deputy Head Teacher Heronsgate Primary School

15 Digital Specialists (Future Ambassadors, Digital Champions)

- Justin Pye: Future Ambassador of Priors Hall A Learning Community
- Emily Richardson: Ed Tech Intern and Future Ambassador of Exeter A Learning Community
- Ashleigh McLellan: Future Ambassador of Woodnewton A Learning Community

- Helena Clarke: Future Ambassador of St Mary and St Gile C of E
- Lowri Steer: Deputy Future Ambassador of St Mary and St Gile C of E
- Caitlin O'Connell: Future Ambassador of Holmwood School
- Momtaz Begum: Ed Tech Intern and Future Ambassador of Ashbrook School
- Sophie Wilson: Future Ambassador of Fairfields Primary School
- Jenny Calder: Ed Tech Intern and Future Ambassador
- Jason Williams-Morris: Future Ambassador of New Chapter Primary School
- Amy Wells: Future Ambassador of Glebe Farm School
- Tom Ruffet: Future Ambassador of Two Mile Ash School
- Elaine Brogan: Futures Ambassador of Olney Middle School
- Kathryn Williams: Future Ambassador of Rickley Park Primary School
- Abi Cole: Future Ambassador of Chestnuts Primary School

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