

How well balanced is technology and tradition in education?



A survey of teachers, students, trainee teachers and school IT managers across the UK, France, Italy, Germany, Spain and Poland, exploring how well Europe's classrooms are balancing new technology with traditional teaching.

Contents

Page 01 - **Foreword**

Page 02 - **Introduction**

Page 03 - **The Index: 5/10**

Page 04 - **The struggle to balance technology and tradition**

Page 05 - **Individual screens vs paper**

Page 07 - **Individual screens vs shared screens**

Page 10 - **AI vs human judgement**

Page 13 - **Investment and training gaps**

Page 16 - **Conclusion**

Page 17 - **Country comparisons**

Page 23 - **Epson's Educate to Empower manifesto**

Page 24 - **Methodology & further information**

Foreword

Epson has a long-standing role in supporting education through technologies designed to help schools and institutions work more effectively, engage students and make information easier to access, share and manage.

From large-scale classroom projection and printing to scanning and document management, Epson technologies are used across education environments to support teaching and day-to-day operations.

As education continues to adapt to new technologies, changing expectations and increasing pressure on resources, Epson believes it is important to understand how these developments are affecting those working and learning within the sector. This report explores some of those challenges and considers how technology can be used in a balanced and practical way to support better educational outcomes.



Dr. Sarah Henkelmann-Hillebrand
Lead for education at Epson Europe



Introduction

Technology is central to nearly everything we do. Data shows 94% of Europeans regularly use the internet.¹ Today, 13–18-year-olds spend up to about six hours a day on screens² and 20 million across the continent will be employed in ICT by 2030.³

It's no surprise young people expect technology to support their learning. It's second nature to them. Education systems have responded, investing fast in hardware and software.

But outcomes aren't improving at the same speed. In many cases they're worsening.⁴ And there's a link between outcomes and how technology is used. In fact, students who reported being distracted by others using digital devices in maths classes scored 15 points lower in PISA maths tests than those who didn't.⁵ PISA is the OECD's Programme for International Student Assessment. It measures 15-year-olds' ability to use their reading, mathematics and science knowledge.

This has led to a backlash with some education systems (such as Sweden's) taking a back-to-basics approach and returning to more traditional ways of learning.⁶

But the debate shouldn't be about whether technology is good or bad in schools. Because it's here to stay. And, overall, it's undoubtedly a force for good. It's about how it's used. It's about having technology that works for learning, when deployed properly. In short, it's about balance.

This report explores how well learning is transitioning to a digital future. It asks whether education systems are keeping up with the rate of change, and calls for a better balance between technology and tradition while the shift happens.

94%

of Europeans regularly use the internet

~6 hrs

average daily screen time for 13–18-year-olds

20m

people to be employed in ICT across Europe by 2030



The index: 5/10

Scoring the balance

Teachers report a relatively poor balance between the use of technology and more traditional forms of teaching and learning.

The research asked teachers to score how well different types of technology are being introduced and balanced against more traditional forms of education. They gave the following grades where 1 is not balanced at all and 10 is perfectly balanced. This was used to create the Educate to Empower Index.



5.0/10

for the balance between individual screens and paper in lessons, with 63% of teachers saying there are too many individual screens

5.3/10

for the balance between individual and shared screens in lessons, with 52% of teachers saying there are too many individual screens

4.7/10

for the balance between AI and human judgement, oversight and traditional teaching methods, with 65% of teachers saying there is too much emphasis on AI

This gives an overall, combined Index score of just 5 out of 10 for the balance across the three areas.

Putting this in context with how learners are marked, the European Baccalaureate (a pan-European school-leaving qualification) considers 5 out of 10 as a minimum pass. Anything below would be classed “failed (weak)”.⁷

The Index therefore shows the system is coping, but there’s work to do to get the right balance between the use of technology and traditional teaching.

“There needs to be a shift in thinking. Education systems must move beyond simply adopting technology and instead focus on how it’s used. That means designing around learning outcomes, rebalancing digital and physical tools, creating more shared and collaborative classroom experiences, and putting clear governance around emerging technologies like AI.”

Dr. Sarah Henkelmann-Hillebrand, lead for education at Epson Europe

THE EXPERT VIEW



“It doesn’t matter if learning is digital or analogue. The real question is what kind of learning do we want to create? Then you can decide what kind of technologies, materials and spaces are required.”

Martin Thun Klausen

Lead ambassador, future classroom lab, and pedagogical IT consultant, University College Copenhagen

The struggle to balance technology and tradition

Students demand tech in lessons and education systems have responded, but it's not translating into better attainment because investment has focused on devices rather than how they're used.

To understand why the Index isn't higher, the research asked a wide range of questions to scratch under the surface.

At the heart of the issue is demand from students for technology in lessons. 79% of students say they use technology in almost every part of their lives, and 58% expect extensive use of technology in classes.

Education systems have responded, with 67% of IT managers agreeing schools have introduced more technology in the last year. In fact, the EU has invested over €23 billion in boosting digital skills at all levels.⁸

But this isn't always translating into better attainment. Data from the Organisation for Economic Cooperation and Development (OECD) shows that global performance in maths and reading has fallen significantly.⁹

Technology isn't bringing the rewards it could

Many teachers (66%) say that while technology adoption has accelerated, its effective use has not kept pace. 76% of teachers and 81% of school IT managers agree that investment has focused on devices rather than how they're used.

According to Dr. Sarah Henkelmann-Hillebrand, "Many schools are caught in a learning technology balance gap. They've invested in the kit, but it's not yet bringing the rewards it could." The research supports this, with 57% of teachers and 63% of school IT managers agreeing that education has invested in technology faster than it can be integrated effectively.

Rather than rejecting technology, 81% of teachers and 87% of school IT managers say there needs to be a more balanced use of technology. Where screens and traditional resources such as paper and textbooks coexist, isolated and shared learning is blended, AI and human judgement work together, and there is more considered investment in technology. 86% of teachers say better balancing the use of technology with traditional teaching methods could boost student outcomes.

Key statistics

79% of students say they use technology in almost every part of their lives

67% of IT managers agree schools have introduced more technology in the last year

66% of teachers say that while technology adoption has accelerated, its effective use has not kept pace

63% of school IT managers agree that education has invested in technology faster than it can be integrated effectively

86% of teachers say better balancing the use of technology with traditional teaching methods could boost student outcomes

What this means...

Schools should not reject technology owing to its challenges. They should consider *balancing* its use with traditional teaching methods as we work towards a digital future. This will help close the learning technology balance gap.



THE EXPERT VIEW

"Technological development is so much faster than the cultural development that goes with it. Schools need more time to flesh out what meaningful practices they need to keep up."

Prof. Niels Pinkwart

Professor of Computer Science, Humboldt University of Berlin, and head of the educational technology lab at the German research centre for artificial intelligence (DFKI)

Individual screens vs paper

Students expect to use individual screens, but teachers say not enough attention has been paid to how they can be used effectively. They also believe individual screens can make it harder to teach core skills. Teachers say there needs to be a more balanced transition to digital education where screens are blended with traditional hard copy materials. This requires ongoing access to printers.

Key statistics

61% of students expect to use individual screens in classrooms

75% of teachers agree that the introduction of individual screens doesn't always benefit learning

68% of teachers believe it's harder to teach core skills including literacy and numeracy, in a world where there's greater use of laptops, tablets and phones in lessons

83% of teachers say the ability for students to pay attention has reduced in a world where there's greater use of laptops, tablets and phones in lessons

As the Index shows, teachers gave just 5 out of 10 for the balance between individual screens (such as laptops, tablets and phones) and paper in lessons, with 63% saying there are too many individual screens.

The research data explored why this is the case. It found that 61% of students expect to use individual screens in classrooms. However, 61% of students also say they're not being properly used in lessons. 66% say this can be a distraction and 57% say it can cause friction between students and teachers.

Meanwhile, 75% of teachers agree that the introduction of individual screens doesn't always benefit learning. And 74% believe that the rapid adoption of laptops and similar devices

in learning means not enough attention has been paid to how they can be used to benefit students.

In fact, 66% of teachers say student demand for this type of tech is outpacing schools' ability to deliver. A further 63% say teachers in their school haven't been given the training to get the most from these screens in lessons.

87% of teachers say there needs to be a more balanced transition to digital education where screens are blended with traditional hard copy materials



Individual screens vs paper

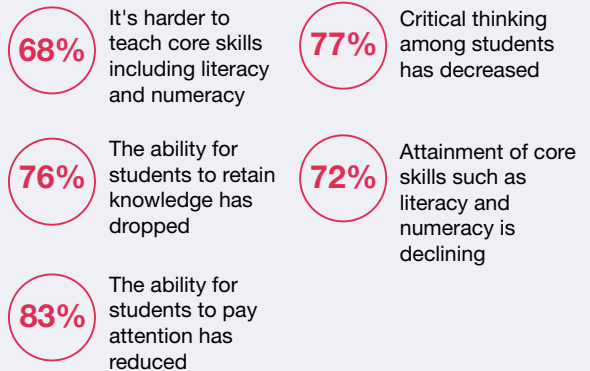
(Continued)

Core skills are suffering

Worryingly, 68% of teachers believe it's harder to teach core skills including literacy and numeracy in a world where there's greater use of laptops. 76% also believe the ability for students to retain knowledge has dropped as a result. A further 83% say the ability for students to pay attention has reduced, and 77% say critical thinking has decreased for the same reasons. About three quarters (72%) say the attainment of core skills is declining in a world where there's greater use of laptops.

The majority of teachers (87%) say there needs to be a more balanced transition to digital education where screens are blended with traditional hard copy materials. 61% say smoothing this transition will boost student outcomes.

Teachers say in a world where there's greater use of laptops:



A greater focus on hard copy materials

66% of teachers are calling for a greater focus on hard copy materials such as textbooks and worksheets in classrooms to support core skills. Most teachers (86%) agree there will always be a place for paper in the classroom.

This supports academic evidence that children learn better on paper than on screens.¹⁰ At the same time, 85% of teachers say it's essential to have access to a quality, working printer to provide worksheets and other paper-based learning materials.

According to Dr. Sarah Henkelmann-Hillebrand, "We need to balance the use of individual screens with continued use of traditional learning materials to give students the best education."



THE EXPERT VIEW

"Paper and books need to stay, but they can be augmented with technology and AI."

Letizia Cinganotto

Associate Professor, Università per Stranieri di Perugia
Expert in CLIL, technology enhanced language learning and AI for language education

What this means...

Education systems should consider carefully managing the introduction of individual screens, maintaining a healthy *balance* with hard copy learning materials and printed resources to maintain or boost literacy and numeracy.



THE EXPERT VIEW

"Classroom and afterschool environments both need to be successful. Printed materials can extend learning beyond school hours due to digital poverty still being a challenge and lack of infrastructure in some places."

Yuliana Topazly

Head of partnerships at DOHE, Associate Professor of Enterprise and Innovation, University of East London

Individual screens vs shared screens

Teachers believe too many individual screens can harm learning, and shared displays such as projectors can improve various aspects of teaching.

The research also looked more deeply into the balance between individual screens in the classroom and larger shared screens, such as projectors or flatscreen TVs.

Overall, 63% of teachers believe the rapid introduction of individual screens to education (including laptops, tablets and phones) can harm learning instead of boosting it.

Teachers say the rapid introduction of individual screens has the potential to reduce collaboration among students (59%), increase isolation (69%), increase loneliness (64%), reduce peer discussion (65%), become a distraction (78%) and cut focus (76%).

Key statistics

63% of teachers believe the rapid introduction of individual screens to education (including laptops, tablets and phones) can harm learning instead of boosting it

78% of teachers say the rapid introduction of individual screens has the potential to become a distraction among students

79% of teachers feel there needs to be a more balanced transition where shared screens such as projectors or flatscreen TV displays are blended with individual ones

76% of teachers believe that using a shared display such as a projector or flatscreen TV in teaching can create a single focus

59% of teachers agree that individual screens can be a distraction, flatscreen TVs improve the situation and large, bright interactive projectors provide the best learning experience



Individual screens vs shared screens

(Continued)

These views are supported by some academics. Jean M. Twenge is a psychology professor at San Diego State University and the author of *10 Rules for Raising Kids in a High-Tech World*. She says, "Digital distraction is terrible for academic performance", and often cites the negative impact laptops, not just phones, can have in classrooms.¹¹

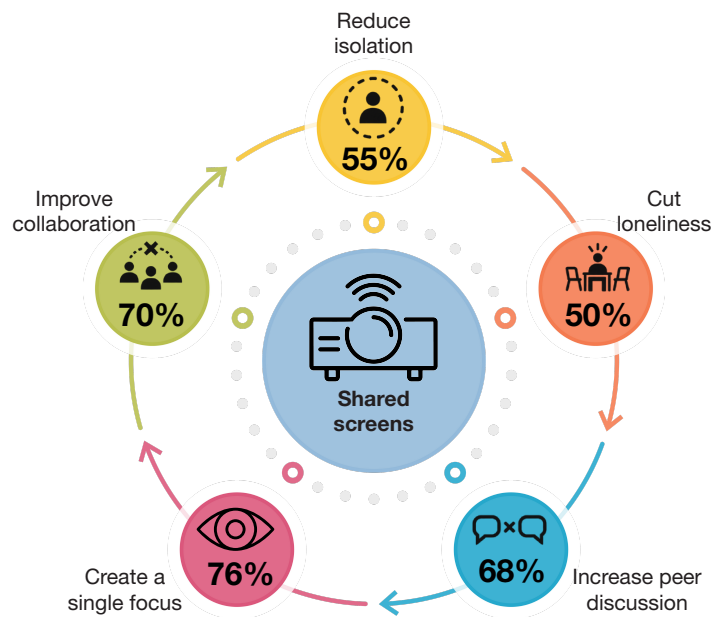
Large shared displays can improve the situation

Importantly, 79% of teachers feel there needs to be a more balanced transition where shared screens such as projectors or flatscreen TV displays are blended with individual ones. 80% of teachers agree individual screens themselves aren't the main problem, it's the way they're being used and their introduction without adequate training.

Reflecting this, teachers believe that using a shared display such as a projector or flatscreen TV in teaching can create a single focus (76%), improve collaboration (70%), reduce isolation (55%), cut loneliness (50%) and increase peer discussion (68%).

Teachers also believe managing a single device is easier than many individual ones (81%) and reduces the need to police what's going on at every desk (75%). This makes it easier to deliver lessons according to 72% of teachers, and 51% believe it can improve student outcomes.

Teachers say using a shared display such as a projector or flatscreen TV in teaching can:



Individual screens vs shared screens

(Continued)

Projectors come out on top

When asked how alternative technologies such as interactive projectors can support teaching and learning, most teachers picked a positive outcome, with 62% saying they ensure every student in a room can see materials and lessons. This is because of the larger image they can create.

In addition, 44% of teachers said projectors allow more hands-on learning and engagement, 43% said they support group learning, and 55% say they create a clear focus for all students in a class. Overall, 59% of teachers agree that individual screens can be a distraction, flatscreen TVs improve the situation, and large, bright interactive projectors provide the best learning experience.



THE EXPERT VIEW

"We need learners to collaborate in lessons. If technology supports collaboration and learning, use it. If not, teachers need to make pedagogical choices and select a different approach. The focus should always remain on learning, not the technology itself."

Sampo Forsström

Lecturer, project manager and educational developer, University of Eastern Finland Teacher Training School

Reflecting on the findings, Dr. Sarah Henkelmann-Hillebrand, says, "Individual screens undoubtedly have their place and in time will become invaluable. But we're not there yet. There's a compelling case for rebalancing their use with large, single displays. And projectors are the best choice. They offer accessibility, can be seen by all the class and create collaborative learning that connects students. Importantly, some Epson projectors have been tested by TÜV Rheinland using visual comfort criteria, achieving Eye Comfort Certification."

What this means...

Education systems should consider their use of individual screens that can isolate students. They need to strike a careful *balance* with the use of projectors that ensure every student in the room can see materials in lessons and create a clear focus for all.



AI vs human judgement

Students want to use AI, but teachers worry it's entering the classroom faster than schools can manage while having a negative effect on learning. Teachers want a more balanced introduction and strong supervision of the technology, while preparing students for an AI-dominated future by boosting their critical thinking with immersive learning provided by projectors.

Key statistics

76% of students expect to be able to use AI in their learning

80% of teachers worry AI is entering the classroom faster than schools can manage

81% of teachers say they have noticed students sometimes believe they no longer need to learn how to spell or do basic maths because AI can do it for them

88% of teachers feel there needs to be a more balanced introduction of AI until there's an effective way to monitor its use by students

80% of teachers say, until AI has settled into education, they want strong human supervision of the technology

The debate about the use of AI rages in every sector. Microsoft founder Bill Gates said in August 2026, "The transition to the AI era will be one of the most turbulent times in human history. Right now, we are not preparing adequately for that transition."¹²

It's therefore unsurprising teachers gave a score of just 4.7 out of 10 for the balance between AI and human judgement, oversight and traditional teaching methods, with 65% saying there is too much emphasis on AI.

As with other areas of the research, students are driving change. 76%¹³ of them expect to be able to use AI in their learning. Of those students, 87% already use some type of AI at least once a week, while just 2% say they never use it.

However, the education system is struggling to keep up. 80% of teachers and 78% of school IT managers worry AI is entering the classroom faster than schools can manage.

THE EXPERT VIEW



"AI seems very promising and we're collecting evidence about its use, but the technology is changing so fast. Also, there is a concern about cognitive offload where AI becomes a companion for students, and they delegate everything to AI."

Letizia Cinganotto

Associate Professor, Università per Stranieri di Perugia Expert in CLIL, technology enhanced language learning and AI for language education

AI vs human judgement

(Continued)

A negative effect on learning

Specifically, teachers worry how students are using the software. The research shows 68% of teachers agree that when students use AI to complete their schoolwork, it has a negative effect on learning.

In fact, 81% of teachers say they have noticed students sometimes believe they no longer need to learn how to spell or do basic maths because AI can do it for them.

Letizia Cinganotto agrees, saying, "There is a concern about cognitive offload where AI becomes a companion for students, and they delegate everything to AI."

Importantly, 75% of teachers agree AI will increasingly play a role in teaching and learning. But 88% feel there needs to be a more balanced introduction until there's an effective way of monitoring the use of AI by students.



THE EXPERT VIEW

"We can't let AI 'happen to us'. We need to lead. If we don't use devices in the classroom, how can we explore students' understanding of AI? It's like trying to learn how to swim without water."

Sampo Forsström

Lecturer, project manager and educational developer, University of Eastern Finland Teacher Training School

AI needs to be carefully monitored and governed

In addition, 80% of teachers and 79% of school IT managers worry their school doesn't have a watertight way of monitoring the use of AI by students in assessments. And 72% of teachers believe students may be getting grades they're not entitled to owing to AI. 88% of teachers say students see AI as an easy way to complete tasks without critical thinking.

The problem is being compounded by a perceived lack of guidance or policy from government on how to manage the use of AI in education. 78% of teachers and 85% of school IT managers agree that while guidelines do exist, they can be vague, out of date or still in development.

This is reflected in European-wide studies of AI policy. European Schoolnet, the European education network, says that while progress has been made, "Differences remain in national readiness, coordination and resourcing."¹⁴

When asked if they had a formal AI use policy for teachers and students, 41% of school IT managers said yes. However, of these, 74% worry it's not fully implemented and 57% worry about it becoming out-of-date.

Yuliana Topazly believes the lack of AI use policies is an issue schools must address. She says, "Workplaces are supposed to be safe spaces. But many schools don't have an AI policy, making it an unsafe place to use the technology. Schools aren't prepared."

However, she also points out that there are great examples of how teachers are embracing the technology. "Some schools are using AI effectively. For example, they will give a task to pupils [without using AI]. Then they'll ask them to use AI and compare the results. There are lots of ways teachers are exploring how to use the tech, but they're not being supported."

Meanwhile, 82% of teachers say they would like more training in how to oversee the use of AI by students, and 78% would like more training and guidance on how they can use it in their own work.

AI vs human judgement

(Continued)

THE EXPERT VIEW



“Workplaces are supposed to be safe spaces. But many schools don’t have an AI policy, making it an unsafe place to use the technology. Schools aren’t prepared”

Yuliana Topazly

Head of partnerships at DOHE, Associate Professor of Enterprise and Innovation, University of East London

Preparing students for an AI-dominated future

Academics say that an important way to prepare students for an AI-dominated future is to help them develop uniquely human skills such as adaptability, analytical thinking, creativity, critical thinking, emotional intelligence, leadership and problem-solving.¹⁵ These skills can be taught through immersive learning.¹⁶ This can include the use of virtual reality, augmented reality and projectors.¹⁷ Importantly, projectors can enable collaborative immersion rather than just individual immersion, making them the better choice.

Until AI has settled into education, 80% of teachers want strong human supervision of AI, and 84% believe students should be assessed for their ability to spot fake news and disinformation.

In response to the research, Dr. Sarah Henkelmann-Hillebrand, says, “AI is developing at speed, and students expect to be able to use it. That means it needs to be managed effectively with the right governance. This requires more training and guidance. Such as how to deliver immersive learning with

projectors, which can boost the skills needed for a future dominated by AI. Until then, schools are calling for a more balanced approach, where AI has strong human supervision and students are assessed for their ability to spot fake news and disinformation.”

What this means...

Education systems should consider ways to equip learners with the skills they need to thrive in an AI-dominated world, such as critical thinking. This can be achieved with collaborative immersive learning techniques using projectors. In the meantime, there needs to be a *balanced* approach where AI has strong human oversight.



Investment and training gaps

Teachers say they often lack basic technology such as printers and projectors. They also feel they don't have enough training to use technology. Sadly, the situation doesn't look like it will change because trainee teachers say education technology training felt like a "tick-box" exercise.

Key statistics

56% of teachers say they and students often lack the basic technology for teaching and learning

45% of teachers said they've at least once been without a printer when needed

85% of teachers say it's essential to have access to a quality, working printer to provide worksheets and other paper-based learning materials

42% of teachers say an overall lack of the right technology is hampering their ability to tailor individualised learning plans for students

78% of school IT managers say gaining funding to assure the best technology is a challenge

To complement the main findings of the research and Index scores, respondents were also asked their views about the investment and training gaps that may exist.

As might be expected from the findings so far, there are some areas for improvement. Over half (56%) of teachers say they and students often lack the basic technology for teaching and learning. Just 10% said they always have the tech they need.¹⁸

When asked what type of technology they've at least once been without when needed, 45% of teachers said a printer, 45% said software, 39% said a laptop, notebook or tablet, and 39% said a projector or screen.

Even when technology is available, it can be limited. 45% of teachers said it's damaged or not working properly, and 38% said it has limited capability.

45%

of teachers said they have at least once been without a printer when needed



Investment and training gaps

(Continued)

Printers are being sidelined

Specifically, teachers say some of the basics have been sidelined. For example, 85% say it's essential to have access to a quality, working printer to provide worksheets and other paper-based learning materials. But 57% say they don't always have easy access to a working one. 72% don't have one in the classroom, and there's even a group (14%) that don't have one working in the school.

This is reflected in how printers are talked about by policy makers. For example, in the 237-page UK government Technology in Schools survey: 2024 to 2025, the words "print" or "printer" don't appear once.¹⁹ The same can be said of the EU's Digital Education Action Plan, Four Years of Progress document.²⁰



THE EXPERT VIEW

"I was surprised by the finding that printers were not available."

Yuliana Topazly

Head of partnerships at DOHE, Associate Professor of Enterprise and Innovation, University of East London

Too few projectors

In addition, while many schools have whiteboards or flatscreen TVs, 35% of teachers say they have limitations and can't be seen by all students. 37% say there's a lack of interactive projectors where they work. These interactive projectors can also be used over the top of traditional whiteboards, which helps balance the use of traditional and digital resources. Just 38% of teachers say there is one in every classroom.

A sizable minority (42%) of teachers say an overall lack of the right technology is hampering their ability to tailor individualised learning plans for students. This is when data, software and hardware come together to build a personalised education for each student based on their learning style and abilities.

Funding remains an issue

But improving technology comes at a cost and 78% of school IT managers say that gaining funding to assure the best technology is a challenge. Almost three quarters (74%) say lack of funding can limit student outcomes and 83% say it can make work harder for teachers.

Importantly, 78% of school IT managers feel they're doing everything they can to improve technology and training within the constraints of policy and funding. However, 84% would welcome greater input and advice from teachers, senior school leaders and students on IT purchasing decisions.

Training is also an issue, with 69% of teachers saying they need better guidance to make use of technology. 61% feel particularly unprepared for the speed at which AI is being introduced, with 63% saying they urgently need more training on how to implement it effectively and safely.



THE EXPERT VIEW

"There is lots of technology training available for teachers, but too often it is disconnected from their subject, their classroom reality and, most importantly, what they actually want their students to achieve."

Alicia Berlanga

Co-president, Global EdTech Alliance of Alliances, Management board member, European EdTech Alliance

Investment and training gaps

(Continued)

The situation doesn't seem to be improving

The research also aimed to uncover if the situation will improve as new teachers come into the profession. The survey asked trainee teachers about the quality of the technology training they get. 47% said it was insufficient or ineffective. Many of them (54%) said education technology training felt like a “tick-box” exercise, and a further 69% said there’s not enough training about AI. 38% of trainee teachers say they feel intimidated by students with superior AI skills. A further 74% want practical training and examples of how to use technology well rather than theoretical training. This illustrates that systemic issues will continue into the future.



THE EXPERT VIEW

“You’re only motivated to use technology when you understand it. But teachers don’t fully understand the technology.”

Yuliana Topazly

Head of partnerships at DOHE,
Associate Professor of Enterprise
and Innovation, University of East
London

Reflecting the main Index scoring, the research asked teachers to score out of 10 whether they believe schools have sufficient technology and training to deliver the best student outcomes. On average, teachers scored schools 4.9 out of 10 where a score of 1 is not at all sufficient and 10 is completely sufficient. School IT managers gave a score of 5.4 out of 10.

4.9/10

Teachers' score of whether they believe schools have sufficient technology and training to deliver the best student outcomes

Dr. Sarah Henkelmann-Hillebrand says, “Getting the right technology – not just the latest technology – in schools is a huge challenge. There are many competing demands, and policy doesn’t always match up with reality. We need a better balance between investment in cutting-edge tech and the basics. Training also needs to equip current and future teachers with the skills they sorely need. While the most important voices on technology should be those who use it, technology vendors of all types have a responsibility to support and guide education systems to get the best outcomes. And that’s exactly what Epson and its partners are doing.”

What this means...

While education systems grapple with the competing demands of new technologies, they must *balance* these with the need for keeping the basics in place. Printers and projectors remain vital.



Conclusion

It's strikingly clear that Europe's education systems need to find a better balance between technology and traditional approaches to learning.

This isn't a failure of the system. It merely reflects the extraordinary pace of technological change, and that adoption has moved faster than integration.

The answer isn't to turn back the clock. Nor is it to assume that every new technology will automatically improve learning. It's to become much more considered about where, when and how technology is used.

That means balancing individual screens with paper and printed materials. Combining personalised digital learning with shared experiences that encourage discussion and collaboration. Embracing the potential of AI while maintaining human judgement and oversight. And investing not simply in more technology, but in the right technology, supported by the training teachers need to use it effectively.

Perhaps most importantly, education systems need to start with the outcome rather than the technology. The question shouldn't be "How do we put more technology into classrooms?" but "What will help students learn?"

Sometimes the answer will be a laptop, tablet or AI tool. Sometimes it will be a large shared interactive display. Sometimes it will be a printed worksheet, textbook, or simply a teacher explaining something to a room full of students.

The classroom of the future will undoubtedly be more digital. But the evidence in this report suggests that the most successful transition will not be one that replaces traditional learning with technology. It will be one that brings the best of both together.

Europe has made enormous progress in equipping education for a digital future. The next challenge is to get the balance right.



Country comparisons

The Educate to Empower Index is based on a combined set of data from all countries where the research took place. Below is a summary of the Index among those nations, along with a selection of data points where they vary notably from the average.²¹

FRANCE

Educate to Empower Index

4.5/10

French Educate to Empower Index: 4.5/10

4.6/10 - for the balance between individual screens and paper in lessons

4.8/10 - for the balance between individual and shared screens in lessons

4.2/10 - for the balance between AI and human judgement, oversight and traditional teaching methods

Key French statistics

48% of school IT managers agree schools have introduced more technology in the last year

76% of teachers say that while technology adoption has accelerated, its effective use has not kept pace

75% of teachers say better balancing the use of technology with traditional teaching methods could boost student outcomes

73% of teachers believe it's harder to teach core skills including literacy and numeracy in a world where there's greater use of laptops, tablets and phones in lessons

92% of teachers say the ability for students to pay attention has reduced in a world where there's greater use of laptops, tablets and phones in lessons

89% of teachers say they have noticed students sometimes believe they no longer need to learn how to spell or do basic maths because AI can do it for them

92% of teachers say it's essential to have access to a quality, working printer to provide worksheets and other paper-based learning materials

Country comparisons

GERMANY

Educate to Empower Index

5.1/10

German Educate to Empower Index: 5.1/10

5.3/10 - for the balance between individual screens and paper in lessons

5.3/10 - for the balance between individual and shared screens in lessons

4.8/10 - for the balance between AI and human judgement, oversight and traditional teaching methods

Key German statistics

83% of school IT managers agree schools have introduced more technology in the last year

70% of teachers say the ability for students to pay attention has reduced in a world where there's greater use of laptops, tablets and phones in lessons

53% of teachers believe the rapid introduction of individual screens to education (including laptops, tablets and phones) can harm learning instead of boosting it

69% of teachers say they have noticed students sometimes believe they no longer need to learn how to spell or do basic maths because AI can do it for them

Country comparisons

ITALY

Educate to Empower Index

5.6/10

Italian Educate to Empower Index: 5.6/10

5.5/10 - for the balance between individual screens and paper in lessons

5.9/10 - for the balance between individual and shared screens in lessons

5.3/10 - for the balance between AI and human judgement, oversight and traditional teaching methods

Key Italian statistics

64% of students say they use technology in almost every part of their lives

49% of school IT managers agree schools have introduced more technology in the last year

45% of teachers say that while technology adoption has accelerated, its effective use has not kept pace

63% of teachers agree that the introduction of individual screens doesn't always benefit learning

57% of teachers believe it's harder to teach core skills including literacy and numeracy in a world where there's greater use of laptops, tablets and phones in lessons

48% of teachers believe the rapid introduction of individual screens to education (including laptops, tablets and phones) can harm learning instead of boosting it

64% of teachers believe that using a shared display such as a projector or a flatscreen TV in teaching can create a single focus

Country comparisons

POLAND

Educate to Empower Index

5.0/10

Polish Educate to Empower Index: 5.0/10

5.0/10 - for the balance between individual screens and paper in lessons

5.3/10 - for the balance between individual and shared screens in lessons

4.7/10 - for the balance between AI and human judgement, oversight and traditional teaching methods

Key Polish statistics

86% of school IT managers agree schools have introduced more technology in the last year

74% of teachers say that while technology adoption has accelerated, its effective use has not kept pace

34% of school IT managers agree that education has invested in technology faster than it can be integrated effectively

54% of teachers said they've at least once been without a printer when needed

Country comparisons

SPAIN

Educate to Empower Index

4.9/10

Spanish Educate to Empower Index: 4.9/10

4.9/10 - for the balance between individual screens and paper in lessons

5.2/10 - for the balance between individual and shared screens in lessons

4.5/10 - for the balance between AI and human judgement, oversight and traditional teaching methods

Key Spanish statistics

76% of school IT managers agree that education has invested in technology faster than it can be integrated effectively

92% of teachers say better balancing the use of technology with traditional teaching methods could boost student outcomes

75% of teachers believe it's harder to teach core skills including literacy and numeracy in a world where there's greater use of laptops, tablets and phones in lessons

72% of teachers believe the rapid introduction of individual screens to education (including laptops, tablets and phones) can harm learning instead of boosting it

85% of students expect to be able to use AI in their learning

86% of school IT managers say gaining funding to assure the best technology is a challenge

Country comparisons

UK

Educate to Empower Index

5.0/10

UK Educate to Empower Index: 5.0/10

5.0/10 - for the balance between individual screens and paper in lessons

5.3/10 - for the balance between individual and shared screens in lessons

4.9/10 - for the balance between AI and human judgement, oversight and traditional teaching methods

Key UK statistics

91% of students say they use technology in almost every part of their lives

92% of teachers say better balancing the use of technology with traditional teaching methods could boost student outcomes

87% of teachers say the rapid introduction of individual screens has the potential to become a distraction among students

87% of teachers believe that using a shared display such as a projector or flatscreen TV in teaching can create a single focus

53% of students expect to be able to use AI in their learning

84% of teachers say until AI has settled into education, they want strong human supervision of the technology

56% of teachers said they've at least once been without a printer when needed

91% of teachers say it's essential to have access to a quality, working printer to provide worksheets and other paper-based learning materials

Five principles for a better balance

The classroom of the future will be digital. But digital doesn't have to mean digital-only. Epson believes education decision makers should follow five principles to create a better balance.

1. Start with learning, not technology

Every technology decision should begin with a simple question: what will help students learn? Schools should avoid adopting technology simply because it is new or because students expect it. Before investing, decision makers should define the learning outcome they want to achieve and then select the most appropriate approach. Sometimes that will mean individual digital devices. Sometimes it will mean a large shared display, printed materials, or no technology at all. Technology should serve the lesson, not determine it.

2. Protect choice in how students learn

Digital transformation should expand the ways students can learn rather than remove existing methods. Schools should maintain a healthy mix of individual screens, large shared displays, printed materials, textbooks, handwriting and face-to-face teaching. Teachers should then have the freedom to choose the format best suited to the subject, student and learning objective. That means ensuring traditional learning tools remain readily available as investment in digital technology increases. The goal should not be a paperless classroom or a screenless classroom. It should be a classroom where both are available when they improve learning.

3. Design classrooms for collaboration as well as personalisation

Personalised learning is important, but education is also a shared experience. When planning classroom technology, decision makers should consider whether it encourages students to look up and engage with teachers and each other, as well as allowing them to work individually. Schools should therefore balance personal devices with technologies and teaching methods that create a shared focus, encourage discussion and enable students to learn together. The classroom of the future should connect students, not isolate them.

4. Keep humans at the heart of AI

AI will play an increasingly important role in education. Schools should prepare for that future rather than attempt to prevent it. But adoption needs to be accompanied by clear rules, effective oversight and strong human judgement. Every education system and school should establish clear policies covering how students and teachers can use AI, particularly in assessment. These should be regularly reviewed as the technology develops. At the same time, education should place greater emphasis on the skills AI cannot replace easily, including critical thinking, creativity, collaboration, problem-solving and the ability to judge whether information can be trusted. AI should support human intelligence, not substitute for it.

5. Invest as much in use as in equipment

Buying technology is only the beginning. Every significant technology investment should be accompanied by a plan for how it will be integrated into teaching, how teachers will be trained to use it and how its impact on learning will be evaluated. Teachers, students, school leaders and IT teams should all have a voice in purchasing decisions. Training should be practical, continuous and focused on real classrooms use rather than becoming a tick-box exercise. And investment strategies should protect the basics. Schools need reliable access to the everyday tools teachers depend upon as well as emerging technologies. The measure of successful investment should not be how much technology has been deployed. It should be what that technology enables teachers and students to achieve.

Getting the balance right

Technology will continue to transform education. The challenge now is to make that transformation work better for the people at the heart of it. That requires a shift from more technology to the right technology; from adoption to effective use; and from digital-first to learning-first. If education systems can make that shift, technology and traditional teaching do not have to compete. Together, they can create classrooms that are more engaging, collaborative, inclusive and better equipped for the future.

Epson and its partners are available at every step to help the education sector unleash the potential of learners, teachers, school IT managers, trainees and leaders.

Methodology & further information

Focaldata surveyed 3,360 people across the UK, France, Italy, Germany, Spain and Poland on behalf of Epson in July and August 2026, following data quality checks. The study comprised four discrete audience surveys, fielded independently online via panel: teachers without IT responsibility (1,227), students aged 16–18 (1,219), current or recently-qualified teacher trainees (611), and school IT managers / technology decision-makers (303). Results reflect natural fallout, with no weighting applied.

3,360

total respondents

1,227

teachers

1,219

students aged 16–18

611 / 303

trainee teachers / IT
managers

Countries surveyed

UK

France

Italy

Germany

Spain

Poland

Further information

For further information about how Epson supports the education sector, visit epson.eu/education

References

1. [Eurostat, Digitalisation in Europe — 2026 edition](#)
2. [European Union, Impact of excessive screen time and social media on young people's mental health](#)
3. [Eurostat, Digitalisation in Europe — 2026 edition](#)
4. [OECD, PISA 2022 Results \(Volume I\)](#)
5. [OECD, PISA 2022 Results \(Volume II\)](#)
6. [The Guardian, Switching off: Sweden says back to basics schooling works on paper](#)
7. [Nuffic, European Baccalaureate, Grades and study results](#)
8. [European Commission, Digital skills initiatives](#)
9. [OECD, PISA 2022 Results \(Volume I\)](#)
10. [Columbia University Teachers College, Children Derive Deeper Meaning from Printed Texts Than Screens](#)
11. [New York Times, The screen that ate your child's education](#)
12. [Gates Notes, The turbulent AI era is here](#)
13. Student audience data, Q13 base: 1,017. This question was not recorded for respondents in Poland
14. [European Schoolnet, Artificial Intelligence in School Education](#)
15. [University of East London, Preparing graduates for jobs AI has yet to create](#)
16. [EdTech, How Immersive Technology Champions the Four C's of Learning](#)
17. [EdTech, Q&A: Modern Projectors Offer Immersive Learning Opportunities](#)
18. Teacher audience data, Q34 and Q35, were asked only of the 1,168 teachers who reported ever lacking technology, excluding the 59 who said they never do. Percentages are of that base.
19. [Department for Education, Technology in Schools survey: 2024 to 2025](#)
20. [European Commission, Digital Education Action Plan — 4 years of progress](#)
21. Index scores are based on teacher responses only. Base sizes: UK 215, France 203, Germany 201, Italy 200, Poland 200, Spain 208.