YOUR GUIDE TO COLLABORATIVE LEARNING

MEET THE CHANGING NEEDS OF STAFF AND STUDENTS
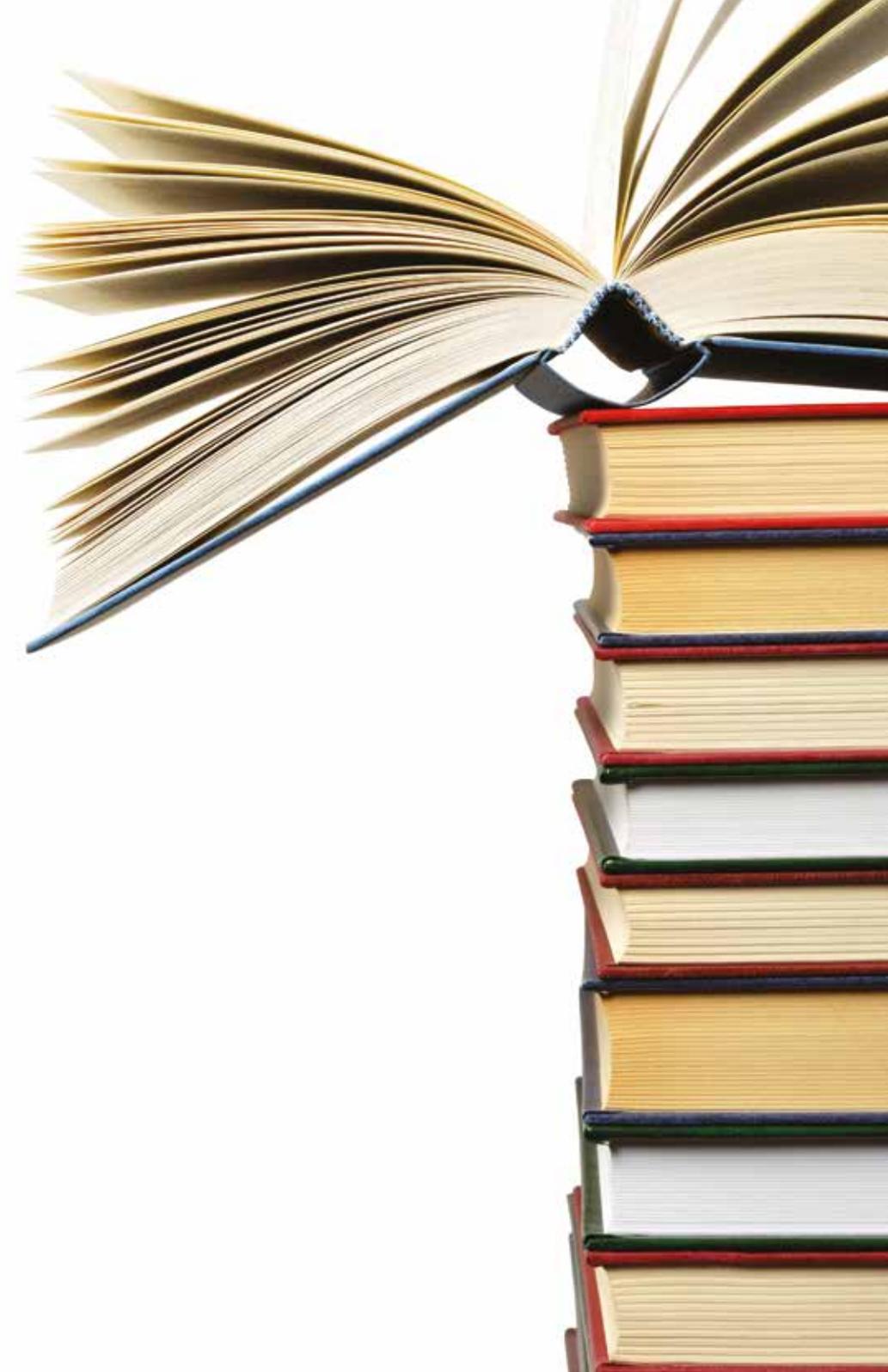
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Contents

Why invest in collaborative learning?

Today's learners – as well as the generations to come – are distinguished by their familiarity with technology as a tool.

From a young age and under the protection of access control, they know that the internet is a world of fascination, that touching a screen is a door to discovery, that they are a few keys away from capturing their creative efforts, and that by exploring different types of content they can determine their passions and preferences.

Whatever their actual understanding of technology before entering the education environment, it's important that these digital natives are prepared for later life and a future career in which technology skills could be invaluable.

Collaborative learning is the natural next step – not only in terms of making students responsible for one another's learning as well as their own, but by allowing them to do so in a way that's intuitive, through the use of technology.

Defined by group work and characterised by self-discovery, collaborative learning is designed to allow students to get the most out of their time together by developing theories, testing ideas and creating evidence based on their evaluation.

All are practices that can stimulate different kinds of learning within a controlled environment and directly impact learner outcomes. All are fundamental capabilities that will bring tremendous value to children and adults, in education, work and life.

Collaborative learning in action

How students can benefit from working together to solve problems or complete tasks.

COOPERATING AS A GROUP

STUDENTS CAN BENEFIT FROM EVERYONE'S INDIVIDUAL STRENGTHS...

WHICH ENCOURAGES STUDENTS TO THINK CRITICALLY AND DISCUSS OPINIONS...

ALLOWING STUDENTS TO ACCESS KNOWLEDGE AND LEARN FASTER

DEVELOPING AS A PERSON

STUDENTS CAN IMPROVE THEIR OWN UNDERSTANDING...

WHICH ENCOURAGES DIFFERENT TYPES OF LEARNER TO ENGAGE AND EXPAND THEIR SKILL SET...

BOOSTING CONFIDENCE IN STUDENTS AND ALLOWING THEM TO DEVELOP STRENGTHS

OUTCOMES

INCREASE PROBLEM-SOLVING SKILLS IN REAL TIME   **AND**   PUBLISH AND SHARE EVIDENCE OF LEARNING

Best practices to support collaboration

Stimulate different kinds of learning

Engage each and every student, however they learn best.

– Auditory

– Visual

– Kinetic

– Creative freedom

– Physical interaction

Measure learner outcomes

Ensure students can demonstrate independent and group thinking.

– Defined objectives

– Annotated textual and visual evidence

– Saving and sharing discussion points

– Publishing learning on blogs

– Producing regular evaluations

Support continuous learning

Create synergy between groups, locations and devices.

– Content sharing from mobile devices

– Always-on internet access

– Connected technologies

– Bring Your Own Device (BYOD)

– Moderator control
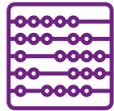
Add value through multiple use

Understand the broader potential of any IT investment.

– Multi-purpose solutions

– Increased efficiency for teachers

– Optimising resources across subjects

– Improved digital and life skills

– Less need for outsourcing

10 ways to bring learning to life

1. Hands-on problem solving

Allow students to interact with content and make digital notes using pens or fingers.

2. Touch technology

Exploring the world through touch is naturally engaging for students – and instinctively easy for teachers to adopt.

3. Multi-sensory experiences

Engage students in a variety of ways to build confidence and enable them to work more naturally.

4. Blended learning

Combine online and class-based education to give students time to study alone and evaluate as a group.

5. Inspiring creativity

Give students the freedom to use their imaginations and approach challenges from different perspectives.

6. Lively presentations

Offer another point of view with innovative tools that encourage discovery, evaluation and discussion.

76% of teachers use technology to adapt to diverse learning styles[1]

7. Digital development

Equip learners with essential skills across a variety of devices in different subjects.

8. Captivating colour

Improve readership, learning and comprehension through light, colour and intense detail.

9. Continuous learning

Give students the freedom to switch between devices and locations to achieve their group objectives.

10. Project focus

Increase students' motivation and sense of achievement with exciting challenges that require research and consideration.

By 2020, 90% of jobs will require digital skills[2]

Using technology to extend learning and abilities beyond education

TECHNOLOGY
Technical capabilities for digital and social skills

MOBILE DEVICES
Flexible learning
for
research and focus

REMOTE ACCESS
Continuous/blended learning
for
problem-solving

INTERACTIVE SURFACES
Multi-sensory experiences
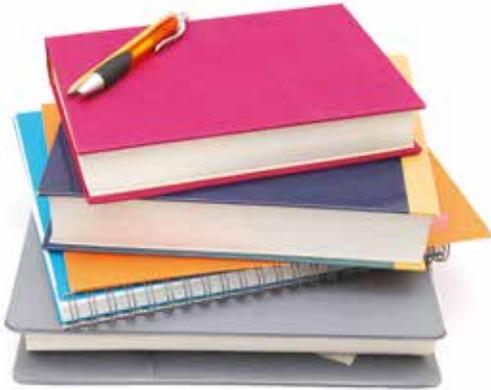for
personal development

VISUALISERS
Group collaboration
for
awareness and analysis

PRINTERS
Practical activities
for
creative thinking

Enhancing learning while improving efficiency

If you're thinking of incorporating collaborative learning technologies into your education environment, the following pages should help. We've provided responses to some frequently asked questions, so you can work your way through the criteria that's most important and relevant to you – and discover how to create effective classroom collaboration.

Q How do we retain student focus during group work?

A Try creating experiences that play to the strengths of each student, and allow them to learn from one other. By putting students into small groups, you can bring different skills and learning types together while the teacher acts as moderator. Tasks will ideally have a set of milestones, so students can receive feedback at each stage to help the teacher understand 1:1 learning requirements.

Q Will we need to provide technical support on demand?

A As collaborative learning is enhanced by technology that can be used intuitively by students and teachers, it shouldn't require a great deal of ongoing support. Look out for reliable solutions that work well together, integrate seamlessly with your existing technology, and are easy to maintain and manage.

Q Will teaching staff require guidance on new technology?

A Although initial training may be required to ensure teachers are comfortable with technology and understand its broader potential, they should then be free to focus on teaching and moderating workgroups. Solutions can be simple and intuitive to use, yet highly effective – allowing teachers to highlight critical details, offer interactive lessons, and encourage students to use different skills.

Q How does technology directly contribute to learner outcomes?

A The value of technology is directly linked to best practice and creative usage. If applied fully, collaborative learning solutions allow for direct feedback and can have a significant impact on engagement, attendance and effectiveness. Groups are also said to attain a higher level of thinking and retain information for longer than students working individually.

Q Does technology apply to multiple user scenarios?

A Collaborative learning solutions are essentially innovative technologies – it's the creative application that makes them ideal for group projects. Consider solutions that address different learning types, such as visual and tactile, and that work with existing or planned equipment, so they can be fully utilised across subjects.

Q Should technology allow for continuous learning?

A Remote access will offer more flexibility, particularly if you already support the use of mobile devices. Choosing a Wi-Fi solution that offers secure storage and ensures synchronisation between devices and locations allows students the freedom to complement group learning with individual study, wherever they are.

Q How can we collaborate with other campuses?

A Interactive projectors are affordable, intuitive and designed for information sharing between locations. You can video conference, present and annotate without a PC, and have all the smart features you need for active collaboration around the world.

Q How can we retain control when students are using technology?

A In almost all cases, the teacher will be able to monitor use of collaborative learning solutions as part of the usual structure. Many standard interactive projectors also have a moderator function built in, which allows teachers to stay in control as they facilitate content and information sharing through the projector.

Immersive learning environments provide positive results[3]

Q | How do I make sure I stay within budget?

A | Choose value-added solutions that allow you to predict and manage spend over time – so there are no hidden costs further down the line.

Q | How can I be sure the technology is reliable and easy to manage and use?

A | Look for proven solutions that have education-specific case studies, and explanations around why this technology is low-maintenance and user-friendly.

Q | Will this technology improve the efficiency of the learning environment?

A | If the measure of efficiency is achieving set tasks and objectives within an allocated time frame, then yes. Collaborative learning solutions are designed to engage students in the moment. As these solutions tend to be simple to understand and use, teachers should also find it easier to plan inspirational projects around them – and students should progress faster while using them.

95.5% of teachers believe that creativity can be applied to every domain of knowledge[2]

Developing digital skills for the future

Q | How do we leverage tomorrow's technology in today's learning environment?

A | Technology moves so fast that it's difficult to know what's just around the corner or here to stay. However, collaborative learning solutions are undoubtedly part of the solid trend that is social interaction and digital literacy – skills that will not only benefit generations of students in their studies, but in their adulthood and careers.

Q | How do we best support students' development in this fast-moving digital era?

A | By understanding where the world is heading, rather than keeping up with every new technology. Today's students are tomorrow's employees, so they need to be prepared to work in a way that's not restricted by time and place, to have an online voice and social skills, to think creatively and use technology to support decision-making.

Q | Can we ensure students are prepared for a future that's unknown, in terms of technology, careers and adult life?

A | Collaborative learning is a means of developing each student's understanding and abilities by allowing them to study with others. This will highlight their individual strengths and passions, which could form the basis of their chosen careers. It will also provide them with invaluable digital, social and problem-solving skills for the future.

94% of teachers believe that creativity is a fundamental skill to be developed[5]

Q Can we control a 24/7 learning ecology, while allowing students to benefit from the freedom of it?

A If you can support flexible learning then you can regulate it – without too many limits on students' freedom. Set measurable tasks while students are working remotely, create dedicated collaboration spaces, and provide secure access to resource libraries and forums.

Q Can we use the technology to help students understand how to stay safe online?

A Yes, by making social learning part of the plan. Teach students how to be e-safe and why by discussing it within groups, highlight best practice when searching or posting online, and develop smart social skills through the ongoing use of technology.

On average, only 30% of students in the EU can be considered as digitally competent[4]

Q How do we measure digital competency?

A Although collaborative learning solutions are generally simple to understand and use, they should still pose a challenge in terms of creative application. This means you can measure digital skills at different stages – from students' comfort levels when using equipment to how they leverage technology to demonstrate their creativity, solve problems, research ideas and elevate their work. Growing in confidence and showing evidence of development are the key indicators.

Q Can the students bring in and use the devices they're familiar with?

A If you can support a variety of personal devices, a Bring Your Own Device (BYOD) programme will reduce the cost implications for your collaborative learning environment. However, you will need to consider equal access to technology for the other students – and provide safe access to your mobile learning platform.

Today's learners expect better links between formal and informal learning[4]

Meeting green compliance targets with ease

Q | How do we support green compliance while investing in the best-quality technology?

A | Choose proven solutions that use clean technologies to lower power consumption and waste. Green technology uses less energy and emits less heat, which can save you money and reduce the amount of time you spend on maintenance. Simply look out for these credentials in a reliable solution that's easy to run and made for non-stop learning.

Q | Can we save on space and resources and still be efficient?

A | Yes, with compact collaborative learning solutions which use fewer valuable resources during manufacture, packaging and transportation. It means you can use technology to engage students during lectures or lessons, without taking up too much space in your education environment.

Q | How can we contribute to cutting our carbon footprint in education?

A | Video conferencing and collaborative technology can reduce travel and carbon emissions, plus eco-friendly digital resources save on paper, supplies and running costs. Making small changes such as selecting double-sided printing and technology with zero warm-up time will also help you meet your environmental targets.

Your at-a-glance solution guide

Take a look at the guide below, and see which collaborative learning technologies match your classroom criteria.

Criteria	Mobile devices	Interactive displays	Visualisers	Printers
Problem solving	●	●	●	
Multi-sensory experience	●	●	●	
Continuous/blended learning	●	●	●	●
Creative thinking	●	●	●	●
Lively presentations		●	●	
Cross-campus collaboration	●	●		
Knowledge/information sharing	●	●	●	●
Multimedia content	●	●	●	
Remote access	●	●		●

Connected solutions for a collaborative environment

Consider technologies that work together to deliver multiple learning experiences.

Create engaging lessons
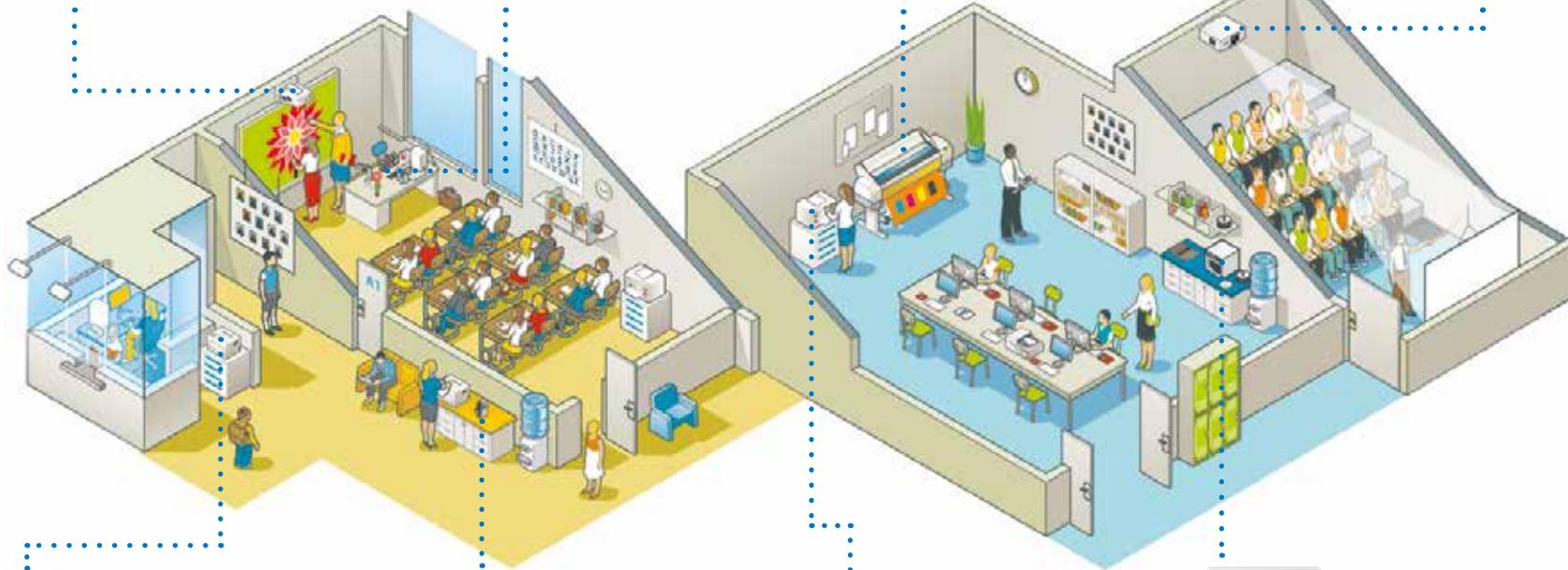Collaborate using interactive projectors.

See the detail
Enhance the learning experience with visualisers.

Make professional portfolios
Create professional standard prints for students' portfolios.

Fill the auditorium
Grab your audience's attention with high-resolution projections.

Print vibrant learning materials
Engage learners and highlight key aspects with vivid colours.

Organise the office
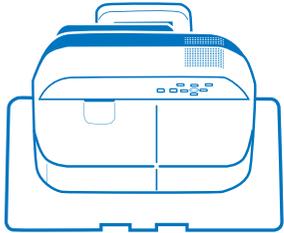Print economical labels quickly and efficiently.

Simplify scanning
Scan documents to your preferred storage system.

Produce your own discs
Store large amounts of information quickly and easily.

Epson's education solutions to support collaborative learning

Interactive projectors

Encourage active participation while keeping control – with no need for an interactive whiteboard.

– Engage naturally, using fingers and pens to make digital notes

– Capture attention through light, brighter colours and intense detail

– Share screens and enable remote study and learning

– Connect groups, locations and devices

– Reduce time spent on maintenance and technology performance

– Enable students to contribute content instantly, while using the moderator function to stay in control
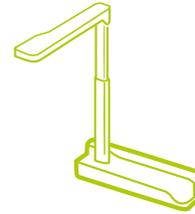
Visualisers

Enhance the learning experience with close-ups of images, 3D objects or living things.

– Observe real-time microscopic worlds

– Record gradual events and create time-lapse videos

– Improve the technology skills of students

– Empower students to develop their own learning skills

– Offer a fresh perspective on problem solving

– Reduce intervention and maximise time spent with students

Our interactive projectors offer cost-effective projection on a screen of up to 100"
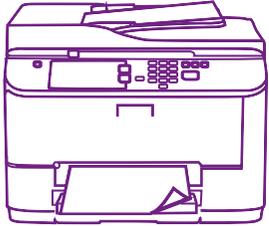
WorkForce Pro printers

Inspire creative thinking during group-based projects.

– Develop albums, books and artwork for students to show and keep

– Produce impactful, affordable handouts and stationery in-house

– Integrate easily into your existing IT infrastructure

– Increase productivity while paying up to 50% less per page[6]

– Print up to 75,000 pages without changing the ink for disruption-free efficiency (WorkForce Pro RIPS)

– Reduce time and money spent on outsourcing

– Epson Open Platform (EOP) enhances the WorkForce Pro's features by integrating third party solutions

Cleaner, kinder and more affordable

At Epson, it's a point of principle to develop clean technologies and design products with low power consumption that are kinder to your budget – as well as the environment.

In independent tests…

Epson's WorkForce Pro models use up to 82% less energy, produce up to 95% less waste and are up to 18% quieter than lasers and copiers.[7]

In independent tests…

Epson's WorkForce Pro models are up to 3½ times faster than laser and colour copiers for first page out.[8]

Discover the full range of Epson education solutions

Cost-effective, easy to use and made for sharing, Epson products encourage interaction and collaboration.

www.epson.eu/education

Checklist

Identify what you need to create your ideal collaborative learning environment.

1. Plan

- ☐ Requirements and budget
- ☐ Collaborative learning practices and culture
- ☐ Dedicated collaboration spaces
- ☐ Flexible working environments
- ☐ Cross-campus collaboration
- ☐ Resource libraries and forums
- ☐ Logistics

2. Purchase

- ☐ Compatible, connected solutions:
    - ☐ Affordable
    - ☐ Easy to manage and use
    - ☐ Proven, with green credentials
    - ☐ Different learning types (auditory, visual, kinetic, etc.)
    - ☐ Remote access
    - ☐ Continuous/blended learning practices
    - ☐ Creativity and collaboration

3. Implement

- ☐ Integration
- ☐ Governance
- ☐ Infrastructure management

4. Practice

- ☐ Initial training sessions
- ☐ Creative application
- ☐ Digital content
- ☐ Project planning
- ☐ Student engagement
- ☐ Defined tasks and objectives
- ☐ Teach and moderate workgroups
- ☐ Active collaboration

5. Measure

- ☐ Digital and social interaction
- ☐ Annotated evidence
- ☐ Saved/shared discussion points
- ☐ Published blogs
- ☐ Direct feedback
- ☐ Regular evaluations
- ☐ 1:1 learning requirements

6. Develop

- ☐ Guidance and support
- ☐ BYOD programme
- ☐ Review outcomes
- ☐ Extend collaboration spaces

Developed for learning.
Designed around you.

Transform your learning environment with Epson's wide range of professional printing, projection and visualisation solutions. Discover knowledge-boosting infographics, insightful videos, collaborative lesson plans and more at:

www.epson.eu/education

Explore the latest education insights, opinions and possibilities at:

www.epson.co.uk/blog

Sources

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2. Improving digital education in Europe, European Commission

3. Trends identified by teachers and students, European Schoolnet

4. Opening up Education: Innovative teaching and learning for all through new technologies and open educational resources, EUR-Lex

5. Creativity in schools in Europe: a survey of teachers, European Commission

6. For more information visit www.epson.eu/inkjetsaving

7. As tested by BLI, over two months to April 2015, against a selection of competing machines, as commissioned by Epson. For more information visit www.epson.eu/inkjetsaving

8. As tested by BLI, over two months to April 2015, FPOT from overnight sleep, against all competitive machines tested at time of publication. For more information visit www.epson.eu/inkjetsaving

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