



Democratising design: How to deliver a creative education when budgets are tight



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About our survey

Serif commissioned an independent study of teachers in state secondary schools, with the survey sent out on 10th March 2023. They were asked two multiple choice questions:

- 1 What is the biggest negative of students not being able to develop their creative skills?
- 2 What is the top feature you look for when choosing technology for creative tasks?

A total of 4,132 (including 252 arts) teachers covering all subjects answered the first question, and 4,094 (including 251 arts) teachers answered the second question. The survey was delivered by TeacherTapp.

Introduction

Welcome to our new guide, which explores the challenges of teaching creative subjects in secondary schools and how you can overcome them.

When creative subjects are eroded from the timetable, or scrapped completely at GCSE, the impact is felt by all pupils – especially those from disadvantaged backgrounds. This was clear from our recent survey of around 4,000 teachers, who raised concerns about pupils’ enjoyment of school and their mental health.

But there are reasons to be optimistic. Our Affinity photo editing, graphic design and page layout software is used by schools, colleges and universities around the world. Along with our support of initiatives like the Young Creative Awards in our home city of Nottingham, this means we see first-hand the exceptional standard of work students can produce when they are given the freedom and support to explore their creativity.

In this guide, you’ll find a mix of thought leadership from design and education experts, as well as practical tips to help you stretch your resources further.

We speak to Graeme Lawrie MBE about how to bridge the gap between creative and STEM subjects, and art education consultant Paul Carney who says that neither lack of funding nor a perceived lack of artistic talent should be a barrier to creativity.

Si Beales draws on his experience in higher education and business to highlight the importance of ‘everyday creativity’ and why experimentation is key to building skills.



Ashley Hewson
CEO at Serif, developers of Affinity creative software

Having worked with the education sector for over 25 years, we’ve seen just how much art and design subjects have been squeezed. Nick Birch and Katy McCabe, both from Serif, shine a light on these challenges and how creative technology can help to overcome them.

We know the education sector cannot find extra funding and teachers from nowhere, and that the difficulties they face could get even worse in the coming years. However, with the right partnerships and access to affordable resources, teachers can empower pupils to develop their creative skills in the classroom and at home.

By democratising the technology for design, you democratise design itself.



State of the arts

The start of 2023 saw teachers from across the UK join the picket line. While their reasons for doing so were varied, some pointed to the lack of investment in creative subjects.

It was the loss of their specialist art teacher that proved to be the ‘final straw’ for one teacher, who said that art, along with music and sport, is the ‘highlight of the week for many pupils’.¹ Elsewhere, another teacher on strike told Schools Week that she and her colleagues in the art department regularly had to buy basic materials for the pupils themselves.²

The pressures on creative subjects have been bubbling away for many years – a combination of tighter budgets and a greater focus on STEM subjects (sometimes alongside a misguided belief that arts subjects are less valuable). Not only that but more than two-thirds of art and design teachers are thinking about quitting the profession, with many citing increased workloads.³

All this could explain why the number of pupils taking arts subjects at GCSE fell between 2021 and 2022.

Subject grouping	Entries in summer '21	Entries in summer '22	% change in entries
Arts subjects			
Art & design subjects	197,595	194,040	-1.8%
Design & technology	82,505	78,405	-5%
Non-arts subjects			
Business studies	95,610	100,990	+5.6%
Economics	6,500	6,805	+4.6%
Statistics	17,950	22,615	+26%

(Source: Ofqual)

1. Source: www.theguardian.com/commentisfree/2023/feb/01/teachers-strike-students-class-sizes
2. Source: <https://schoolsweek.co.uk/its-more-than-just-pay-school-teachers-on-why-they-are-striking>
3. Source: www.tes.com/magazine/news/general/more-2-3-art-teachers-considering-leaving-profession

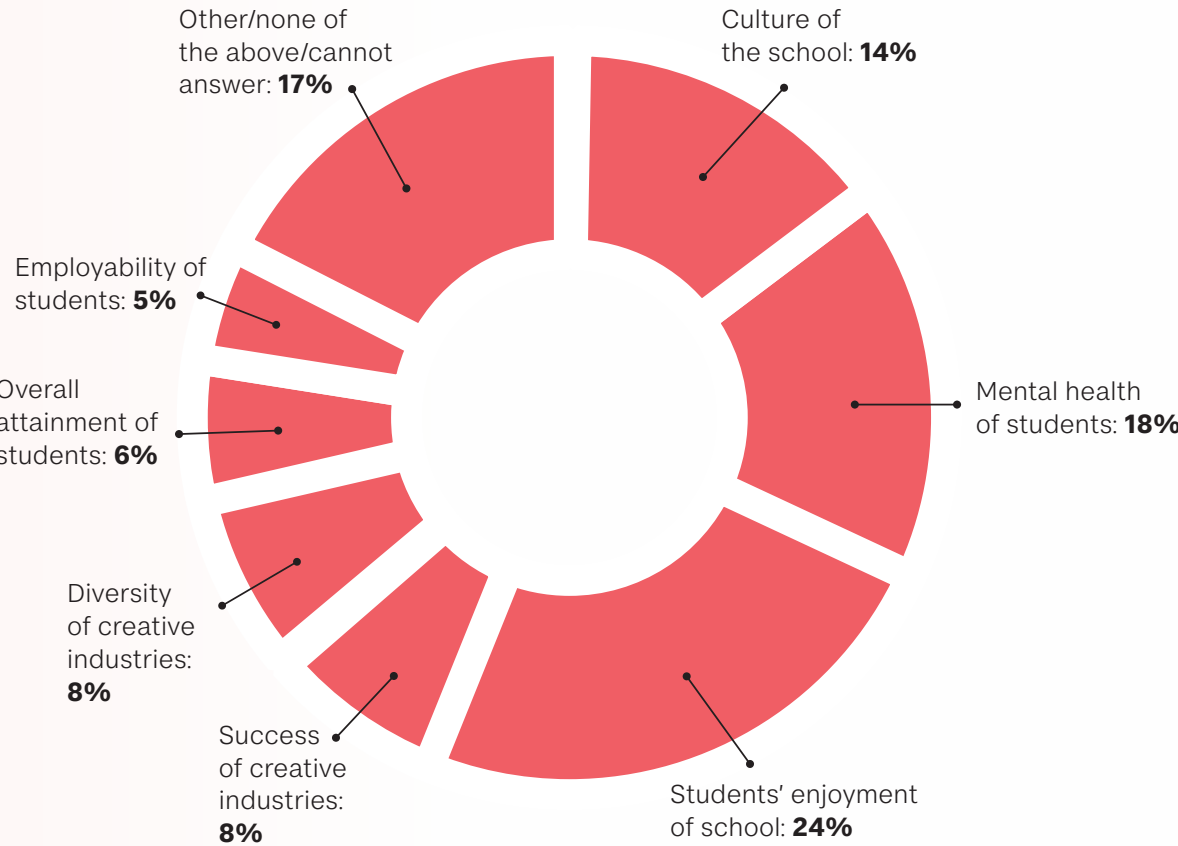
While exams aren't everything, the recent drop is indicative of a swing away from creative subjects towards those that are perceived to offer better career prospects.

Yet sidelining the arts is detrimental to everyone, from individual pupils to society as a whole. The arts have been widely touted as a way to help schools recover from the impact of the pandemic and the mental health crisis that followed.⁴ Even without that, think how drab school life would be without the opportunity to work on creative projects, whether it be GCSE coursework or a pupils' magazine.

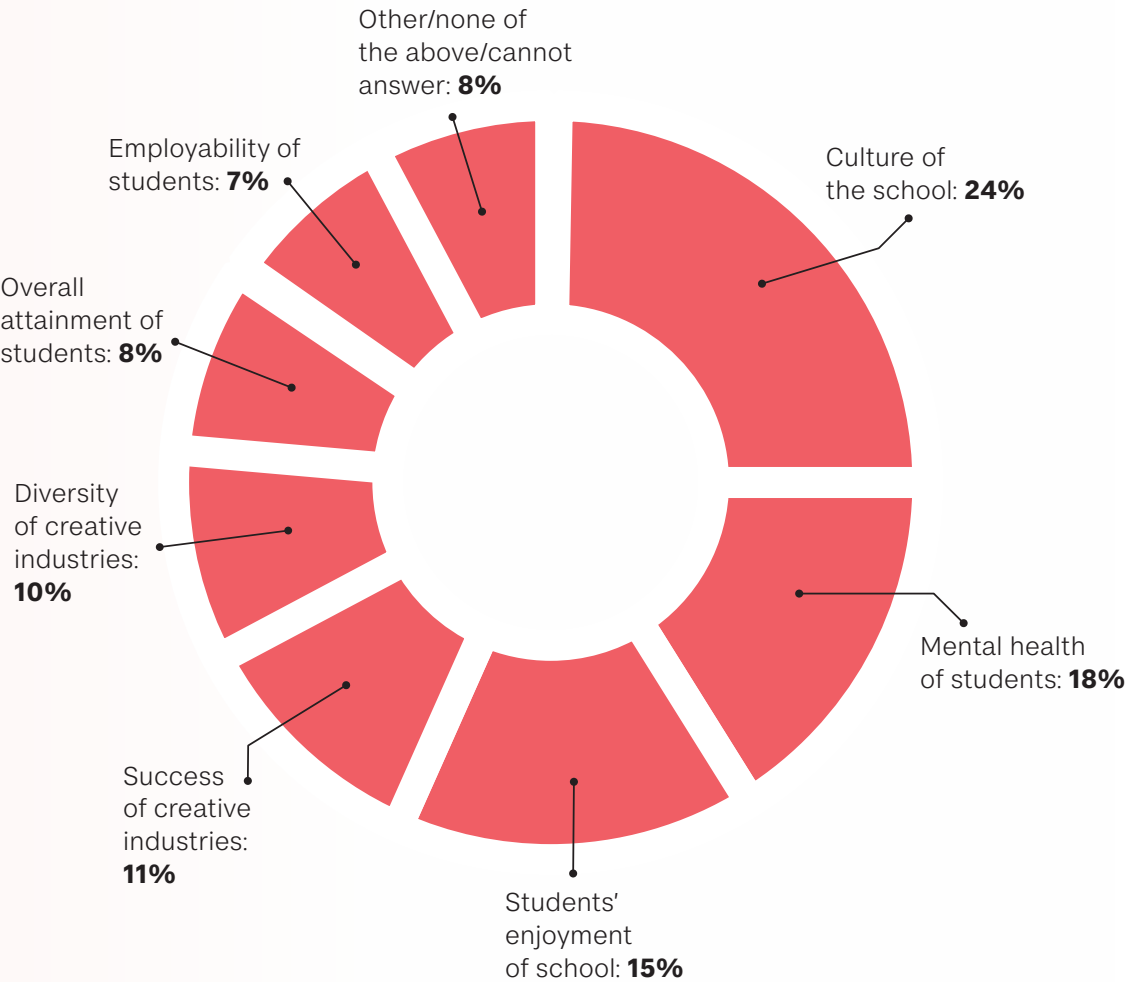
There are wider issues to consider too. The decline of creative subjects could lead to skills shortages in professions such as graphic design, as well as a lack of diversity if pupils from socially disadvantaged backgrounds are excluded from them.

It's pupils' enjoyment of school that will suffer most if they aren't able to develop their creative skills, according to a quarter of 4,000 state secondary school teachers, who took part in our independent survey, conducted in March 2023. Just under a fifth (18%) say pupils' mental health, which has already suffered due to the disruption of the pandemic,⁵ would be impacted. Speaking to arts teachers specifically, the biggest negative is on the culture of the school, followed by mental health.

Snapshot: The biggest negative effect of students not being able to develop their creative skills according to secondary school teachers



The biggest negative effect of students not being able to develop their creative skills according to arts teachers (including D&T)



But creativity is needed in STEM subjects too – from coming up with new and innovative ideas to having the digital design skills needed to produce diagrams and reports.

Back in 2014 a Culture, Media and Sport Select Committee report made clear a growing view that ‘the crucial role of arts subjects in a modern education should be recognised and that art subjects should be added to the STEM subjects, changing STEM to STEAM’. Since then, the idea has gained momentum – as Graeme Lawrie MBE explains in the next section.

Pupils who excel in STEM subjects need design skills if they want to follow a career in architecture, engineering or product development. Finally, creative hobbies, like photography, can improve people's wellbeing even if their career path is scientific or technical. As our survey suggests, the impact creative subjects have on pupils' mental health is surely enough to promote them at all levels of education?

4. Source: www.tes.com/magazine/sponsored/artsmark/how-arts-can-help-schools-recover-covid
5. Source: www.bmj.com/content/376/bmj.o430

Design matters: The interplay between creativity and STEM

Graeme Lawrie MBE spent 20 years leading design and technology, and science departments at Sevenoaks School, before becoming partnerships director at ACS International Schools.

As part of this role, he led the STEAM 2022 event, which saw 10,000 children from schools across the UK gather at Thorpe Park for a day that brought together creative and STEM subjects. Here, he discusses the importance of creativity in every subject, and how partnerships between state and private schools, as well as universities and businesses, are critical in building skills especially when resources are limited.

Why is creative thinking such an important skill to teach children?

Careers aren't the same as they once were. We don't leave education as an expert in one subject and do one job our entire life. Young people now need to be highly adaptable because they will jump between jobs and will constantly be presented with challenges they've never come across before. They'll need creative problem solving skills to be successful. In my opinion, this is the future of education – creating individuals who can adapt.

Do you agree that certain subject disciplines are failing to support this?

Absolutely – this is certainly true in IT, for example. Gone are the days of having specific lessons and learning how to type, create a document or browse the internet. Digital skills are useful in every single subject.

When I was a teacher, we'd have physics students doing some data analysis while product design students would be researching materials. Both sets would be working with spreadsheets as they needed to complete calculations, so we'd bring them together and integrate learnings from the IT department into the wider curriculum.

We just mapped it out, considering where we used certain skills across all of the subject areas, and where they can be taught more effectively by encouraging these skills across subjects.

The same can also be said for creative skills. To be more effective and efficient you need to be able to form creative solutions for things, whether you're creating a piece of art or are faced with a scientific query.

What was the motivation behind the STEAM (science, technology, engineering, arts and mathematics) event you organised in 2022?

We wanted to create an experience where children can go and be inspired by careers they didn't know about. At ACS, we work in partnership with a lot of local state schools and so I spend a lot of time talking with school leaders. Whenever we discuss trends or opportunities where we could work together to benefit children across the region, STEAM always comes up.

It can be difficult for individual schools to access the expertise, facilities or resources for all of these subjects. But because of the scale of the event, we were able to pool our resources and get so many fantastic exhibits together. On the day, children interacted with

everything from helicopters to Titan the robot. We gamified it – children could only ride on a rollercoaster after they'd collected a certain amount of stamps from the educational exhibits.

How was it received by the staff at the state schools that attended?

Every activity was created in line with the curriculum, so teachers knew that they could meet their requirements. Our tagline was: 'This isn't a day off school – this is school' and the teachers loved it. It's obviously satisfied a real need in education, while allowing different industries to put the word out about the careers they offer.

Engineering, for example, is really struggling to recruit at the moment. Hopefully events like this can start to inspire children and bridge that gap. It's all about encouraging employability.

How important is it for children to have access to the right resources to encourage experimentation in education?

The teachers we meet within local schools are amazing – what they manage to do with the resources they have is incredible. But there's always room to add more.

It's always such a shame if there's a student showing a real interest in something, but there's not an opportunity for them to excel at it.

The links between local primary schools, secondary schools and ACS – and our links with universities – are so important because it gives local children access to more resources. The pooling of resources means that you're giving opportunities to children that they just wouldn't have unless people collaborate and work together. You can show them a video online of 3D printers, for example – but if you can bring them somewhere where they can programme and practice on state-of-the-art machines, they'll get a much more fulfilling experience.

Alongside the STEAM 2022 event, we have a constantly moving resource via our outreach boxes. Here we might have Virtual Reality headsets, for example. After giving school teachers training, we'll then give them the technology to integrate into their lessons for a number of weeks. Across the course of a year, thousands more students have the opportunity to use software and hardware that they wouldn't have been able to touch otherwise.

And this is so important – above everything, children need to be creative and highly adaptable individuals that don't fear change. This way when new technology comes along they're keen to learn how it can help them, rather than being in fear.



GRAEME'S KEY TAKEAWAY

Building links between primary, secondary and private schools, as well as universities, creates a pool of resources that young people from all backgrounds can benefit from – because nothing is better than hands-on experience. As the boundaries between traditional subjects blur, young people will need to develop a mix of creative and technical skills and be ready to adapt to the challenges of a fast-changing world.

Future-proofing the design curriculum

There have been calls to raise the status of design education in schools, led by digital media learning company Pearson and backed by a wide range of STEM and design organisations, including The Royal Academy of Engineering and The Design Council.

According to Pearson, around half of secondary teachers and school leaders believe the design curriculum should be modernised. A further half think that it should be geared towards solving major challenges, like climate change, and helping pupils to develop the skills needed in the workplace. This new curriculum would move away from designing disposable consumer products towards sustainable products or digital assets like websites.

“Design and technology has provided decades of valuable skills to young people, however, in the face of continued national decline in take up of the subject alongside rising costs associated with the current workshop infrastructure and a shrinking teacher workforce, it is no surprise that many people are supporting change.

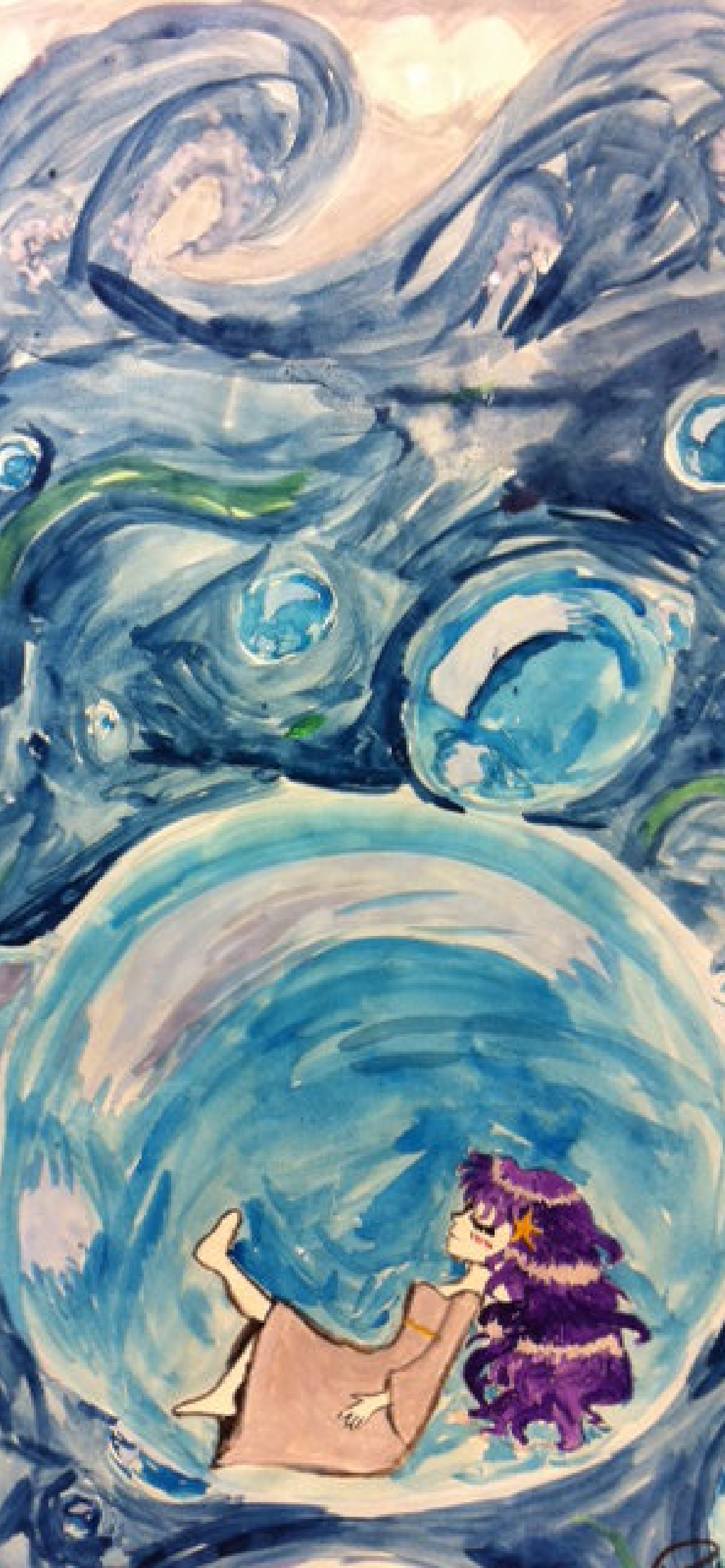
“Together with leading organisations and educators, and driven by growing feedback from learners, we have started to outline our collective vision for a future-proofed and relevant design education curriculum that all students will be able to identify with.

“Our aim is to strengthen the subject’s position in schools, equip learners of today with the skills to solve tomorrow’s real-world problems and support the career aspirations of all learners, while hopefully giving much-needed security to the brilliant design teachers who will be at the centre of this reinvigorated subject.”

Sharon Hague
Senior vice president
of UK schools at Pearson

Find out more at go.pearson.com/thefutureofdesign





Why you can – and should – teach creativity

Paul Carney is one of the UK's leading art and design education consultants. His website features lots of lesson content and resources for primary and secondary teachers. For more details visit www.paulcarneyarts.com.

The creative industries is one of the UK's biggest success stories, and contributed around £109bn to the UK economy in 2021. Yet this isn't always reflected in funding for creative subjects in schools.

Having been a secondary school art teacher, and through my work with schools, I've first-hand seen the challenges teachers face in developing creative skills when they have limited time and resources.

Recent education policies have prioritised building knowledge to the detriment of teaching creativity – but we need to learn creative processes. There's also a misconception that creativity naturally comes from knowing more, which isn't the case. Just think how very young children are always coming up with new ideas even though their knowledge is limited.

There are always pupils who are naturally creative, and who'll excel in art and design no matter what, often working on their own projects at home. Then there are those who think they don't have any artistic talent so don't engage with creative subjects.

It doesn't help that some people, including educators, believe that creative skills cannot be taught. In fact, nothing could be further from the truth.

We're constantly creating and curating in all areas of our lives – whether it be designing our home or garden, putting together a playlist, or coming up with a solution to a problem at work. We use abstraction to explore different scenarios or consider how something

might fit together before starting work. And, even if we don't visit art galleries, we're all consumers of creative works, including TV shows, magazines and music, that enrich our lives.

No child should be held back by lack of funding in schools, nor a perceived lack of talent.

I use my 20-plus years' experience teaching art to provide free or low cost lesson plans and resources, as well as training, to support schools to deliver a creative education. There are a number of highly-effective techniques and frameworks that teachers can use to develop their pupils' creative skills. For example, the four Cs (communication, collaboration, critical thinking, and creativity), and the eight imagination types (empathy, intellect, emotional and so on) can both help to inform activity planning.

Creativity encompasses many things – it's about invention and imagination; play and experimentation; problem solving and the freedom to be absurd. When it's neglected in schools, there are repercussions not just for individuals but for society as a whole. We lose what it is that makes us human. This is why it's so important that every child, no matter their background, ability or aspirations, has access to a rich and varied creative education.



PAUL'S KEY TAKEAWAY

Creativity is important for every child – yet these skills don't have to be innate. Understanding the creative process is vital for a wide range of careers and hobbies, and can be achieved via proven frameworks such as the four Cs and the freedom to play and experiment.

Creativity for every job

Si Beales worked as a principal lecturer at Nottingham Trent University in the School of Art and Design for more than a decade, and has also taught students at Solent University, London College of Fashion and Central Saint Martins. He used this experience to form the Future Skills Club (FSC), which aims to build vital life skills like creativity and collaboration – and help young people reach their full potential.

In this article, he looks at how schools bridge the gap between the creative skills needed in higher education and beyond by encouraging experimentation.

The trouble with creativity is that it's become commodified. It's impossible to teach when it's regulated, conformist and uniform. It should be about challenging stuff, arguing that everything should be better and solving problems.

All too often, it's put in a box of simply 'creative expression'. This is important, of course, but it mustn't be forgotten that there's real value in creative thinking – harnessing the tools for complex problem solving – for other areas like science, maths or English. On the other hand, it is also often seen as something very unattainable. There's a perception that having a creative career means becoming a famous actor, working in films or selling sold-out tours. But creativity is something we should be using every day.

Having taught in universities, I found that there was a real disconnect between what people in the creative industry wanted and what school curriculum typically provided, which is why I formed FSC to try and bridge that gap and help to nurture a deep learning of creativity.

Encouraging experimentation

When I worked in higher education, I found that we'd often have to 'de-school' students. They were terrified of making mistakes, which made it very hard to be creative. The biggest barrier to creativity certainly is a fear of failure. Culture has made everything incredibly standardised, which means that we're afraid to make something that's different, unique or sometimes – not good. But creativity depends on experimentation, prototyping, failing and trying again.



This thirst for perfection and over achievement may well feed, in some part, into the massive mental health crisis that's being faced by young people. There is lots of evidence that creativity makes you healthier, more fulfilled and ultimately more employable.

Whether you're trying to create a product, launch a business or become an engineer, you need to understand the context of something, learn how you can take ideas to get to a new idea, and then make it happen. It doesn't matter if the end goal is to create a vaccine or a logo – you're still understanding, researching, exploring and making connections, which is creativity in a nutshell. It's the fundamental thing that makes you very valuable in the professional marketplace.

It's a shame, then, that young people are boxed off very early and told that 'you're a scientist' or 'you're a designer' – creativity isn't seen as being an interdisciplinary skill.

Some people do think otherwise. I'll always share an example of a study that encouraged medical students, specialising in ophthalmology, to observe art in order to improve their clinical observation skills.⁶ The study was a success because they were able to look at things in a different way. I think it's a terrible thing that students are forced to specialise too early, rather than understanding that creativity is part of every single job that you do.



We face so many problems in this world, and we have to try and help this younger generation to solve them. The answer could come from anyone – this is where democratising creativity, and design, is so important.



SI'S KEY TAKEAWAY

To reach a truly creative solution, it's important to make mistakes and learn from them throughout the creative process. Robert Dyson tried 10,000 times before he got his vacuum cleaner absolutely right so fail, learn and persevere. A mindset that's focussed on experimentation and drive will be very attractive to future employers.

6. Source: www.sciencedirect.com/science/article/abs/pii/S0161642017317086



Tools of the trade

Nick Birch, head of Affinity education licensing at Serif shares his thoughts on the role that creative technology can play in building skills for a range of careers.

It can really hit you, when you're visiting a school in a deprived area, just how limited the IT resources are for creative subjects.

Sometimes pupils are working with equipment that's over 20 years old. This makes it harder for them to develop creative skills using professional-level software, potentially putting them at a disadvantage when they take their next steps into higher education or the world of work.

It's symptomatic of the funding challenges that are all-too-common in state schools today, and which became painfully clear when the pandemic forced them into remote learning. While the Department of Education provided equipment like laptops, tablets and routers in a bid to bridge the growing digital divide, many households still didn't have the technology for children to learn effectively at home.

Skills for the future

Lack of technology, of course, isn't the only problem. Arts and design subjects have come under pressure in recent years, and uptake of them at exam level has declined. Even if young people don't formally study these subjects, or follow a design-related career, they need opportunities to develop creative skills in other subjects and through self-teaching.

My colleague, Matt Searston, an Affinity Designer product expert, agrees. He told me: "In this day and age, everyone needs some element of design skills – especially when it comes to personal branding, like

CVs, websites and social media channels. Being able to create professional-looking presentations, reports and promotional materials is also important in many jobs now. If you don't have any experience in that before finishing school, it can be a setback."

Young people often have a hunger to work with creative software for their own projects and interests, like drawing anime style pictures.

Matt added: "There are free creative apps out there, which the most passionate pupils turn to. A lot of these rely heavily on templates or presets though. It's a gateway, certainly, but won't help them to develop specialist techniques. As soon as they come to use the professional software they could feel out of their depth – yet with something like Affinity, the barrier to entry is much lower than other professional-standard tools, but they'll be using a system at a very similar level."

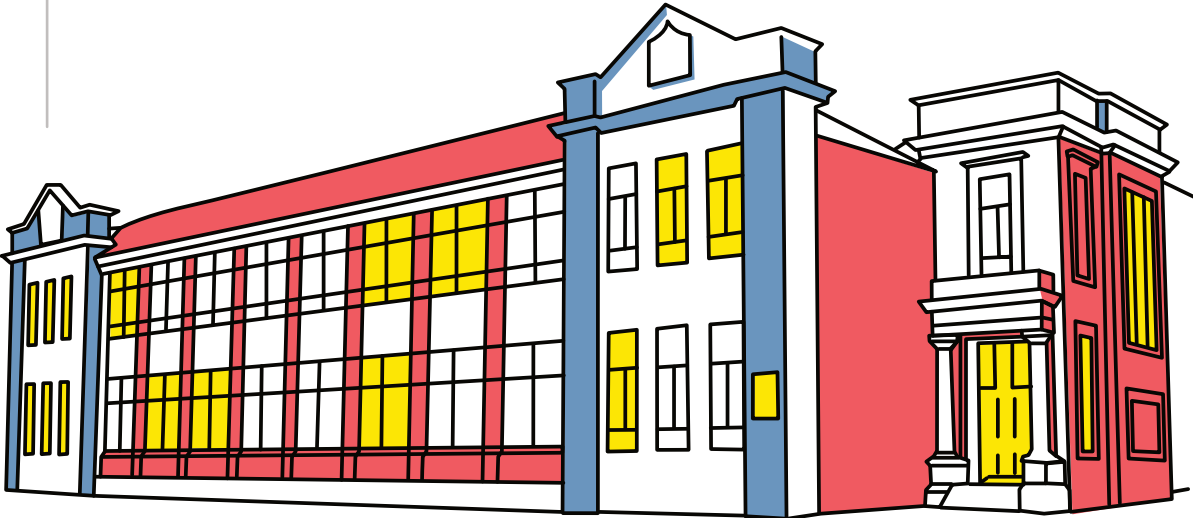
Democratising design

Our research (p10) shows that arts (including D&T) teachers are looking for professional-grade software – but it needs to be affordable and accessible to everyone, including those who aren't studying art and design. When schools invest in expensive creative software, pupils' exposure to it is sometimes minimal because they don't have enough licences. They need opportunities to experiment, to make mistakes and to learn. ►

► Site-wide licences offer a solution to this, making creative tools available to more people, on any compatible device at home or in the classroom without a costly subscription. It means schools aren't forced to choose between expensive, outdated or free software – they can instead give pupils the freedom to develop creative skills in a way that works for them, even if resources are stretched.

We're always impressed with how quickly young people learn to use our own creative software. During a recent visit to Carrick Academy in South Ayrshire, Scotland, we saw first-hand the quality of the work being produced, and how immersed they were in the process. John Allen, a design and technology teacher at the school, said:

“Affinity’s layout is very similar to other programs that we’ve used, so it was really easy to pick up and start creating. It gives us precise control over alignment and working with layers, and switching between the Publisher and Photo Personas allows for much greater creativity. Affinity is reasonably priced and has no subscription fee, so we can also use it at home and complete projects at our own pace.”



The ability to work in a non-destructive way means they can try things out and see if it works, or revert back to the original if needed. All this will stand them in good stead for whatever career path, or interests, they choose to follow in the future.

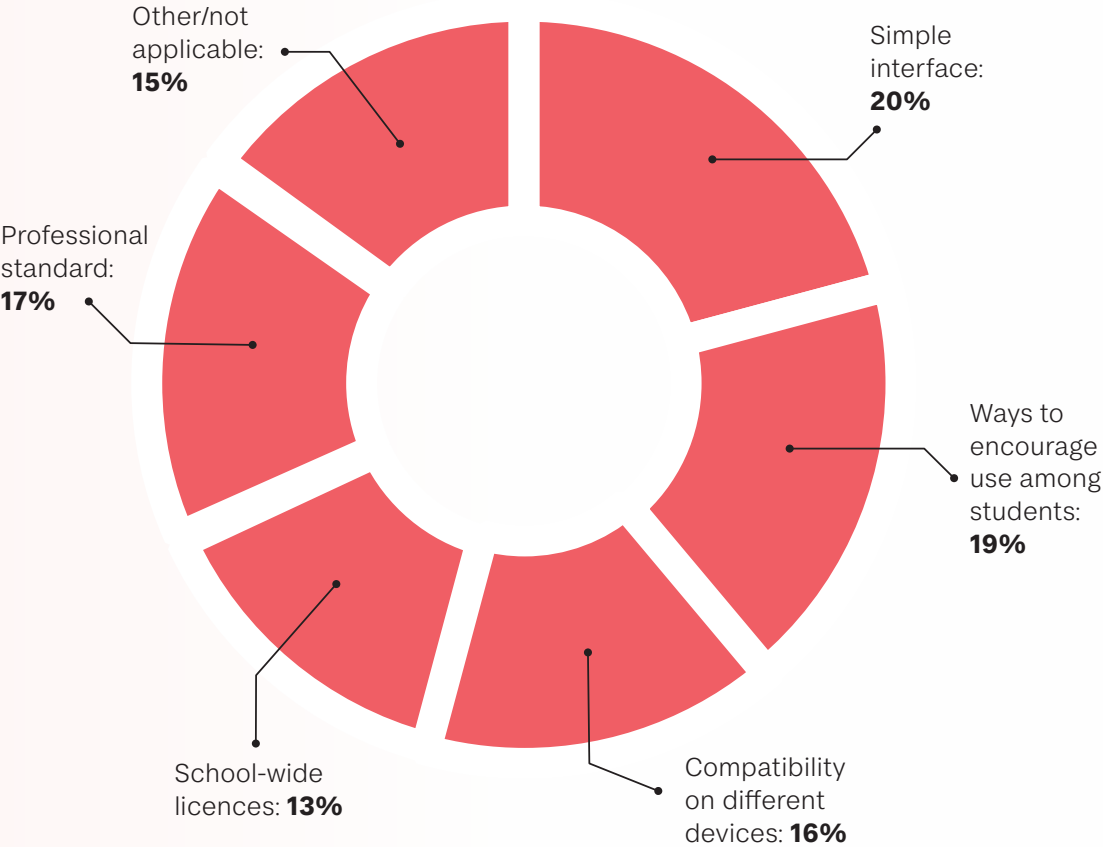
“Learning creative skills isn’t a tick box exercise”

Katy McCabe, Affinity product expert at Serif, explains why the right tools can embed a culture of continuous creative learning in schools.

“As a former teacher, and now working with schools in my current role, I know how difficult it can be to give room to creative expression when you’re continually thinking about meeting the requirements of Ofsted and the National Curriculum.

Even if schools have access to the very best computers, they don’t always have the latest creative software. And if they do have that software, pupils might only spend an hour or two on it because licences are limited. Buying software is, of course, a big decision for any school, as is the time it takes for teachers to upskill on it. They might have little influence in the procurement decision, and then only get a couple of hours’ training on it several months before it goes live in the classroom. ►

Top features arts (including D&T) teachers look for in creative technology



► As well as funding, the appetite for creative software differs among schools. Some go by cost alone, opting for free versions that wouldn't be used in a professional setting. Others go for professional-standard products but, as well as having limited licences, they're often too expensive for pupils to buy once they've left school. As a result, they lose their skills. When you get the balance between cost and functionality right, you open up so many opportunities for pupils and teachers – helping to level the playing field and drive up standards.

I believe that everyone needs design skills to succeed in today's world, whether in traditional employment or with side-hustles and other interests. The generation coming through schools today don't necessarily want to follow standard career routes or stay in the same job all their working life, and they're often looking for ways to make money online. They're producing videos and social media content, and running online shops, all of which requires well-designed assets and creativity.

Time constraints and inspections might be a fact of life for schools but creative technology is evolving and giving pupils more freedom to experiment. I'm a big fan of the non-destructive workflows within Affinity because it allows pupils to take risks, respond to feedback and progress quicker towards their hoped-for grade."



Nick Birch
Head of Affinity education
licensing at Serif

Tips for using creative software in schools



1. Master the basics – and think bigger

Some of the cheapest – or free – design applications are a good gateway into creative software, especially if they're available on a pupil's phone. As they progress, a professional-grade product allows them to build on their creative skills and deliver projects to a high standard. Embedding non-destructive workflows can alleviate the 'fear of failure' Si Beales mentions on p8, enabling pupils to learn faster.



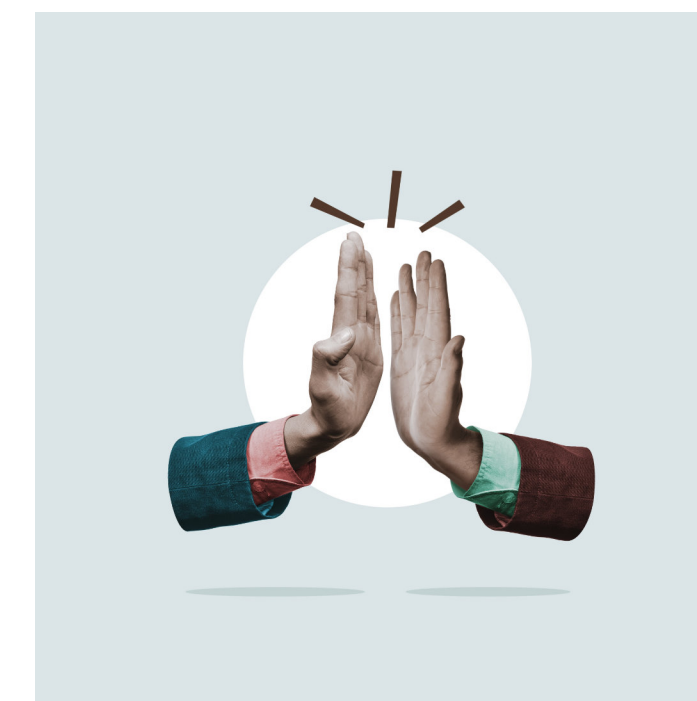
3. Available on any device

Many schools today prefer the flexibility that tablets can offer. When creative software is available on any of these devices, pupils can access it at home or in school, removing time and licence constraints.



2. Prioritise fast implementation and ease-of-use

Software implementation is traditionally time-consuming and disruptive. The advantage of app-based creative software is that it can be installed quickly and is available on any compatible device. Many pupils can develop their skills independently through experimentation, guides and YouTube tutorials, as well as through structured work in the classroom.



4. Offer access to all

Schools no longer have to be constrained by licences and cost. Serif's Affinity Publisher 2, Affinity Photo 2 and Affinity Designer 2 offer the best of both worlds – giving pupils access to professional software with a one-off payment, rather than an expensive monthly subscription. Site-wide and at-home access means that more pupils have the chance to develop creative skills both within and outside of art and design lessons.

FIND OUT MORE

How we can help

The Affinity suite of award-winning creative software – Affinity Designer 2, Affinity Photo 2 and Affinity Publisher 2 – is used by secondary schools, colleges and universities, as well as in professional environments across the globe.

With low-cost universal licences available, pupils and teachers can access professional-grade software on Windows, macOS and iPad wherever they are. It allows educators to deliver the curriculum in an efficient and effective way, and for pupils to develop their skills on a variety of projects – from magazines and flyers to logos, concept art and games. To help you get the most from the software, Affinity also offers a dedicated Learning Portal.

To find out more, including requesting a demo, get in touch with the education team...

FIND OUT MORE



affin.co/edu

