

The state of evidence in EdTech 2023

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Produced in collaboration with



A word from BESA

Evidencing the impact of educational products and services is rightly a key consideration of for buyers – schools, students and parents, and also to the producers and innovators of education resources supplies – the education industry. BESA is the industry body for education companies, providing support, advice, research and networking to the UK's leading education suppliers for 90 years. We are proud to partner with EDUCATE Ventures to help EdTech companies access independent and expert support services to improve the quality and efficacy of EdTech evidence and research. In this, the first of a series of regular reports, our colleagues at Educate Ventures take a deep dive into some of the recent research conducted by BESA members.



I hope you enjoy our report!

Caroline Wright, Director General British Educational Suppliers Association (BESA)

A word from EDUCATE Ventures Research

I'm absolutely delighted to be working in partnership with BESA on this report, "The State of Evidence in EdTech 2023". BESA is an essential partner for the UK EdTech ecosystem. Their expertise, support, and advocacy help to drive innovation and promote excellence within the industry, benefiting educators, learners, and EdTech companies alike.

As someone who has been passionate about the potential of EdTech for many years, it's exciting to see how the industry has developed and evolved. Evidence is the key to unlocking the potential of EdTech, and as such, it should be at the forefront of every decision made by educators and EdTech companies. By using data effectively, companies can build better products, make informed decisions, and ultimately drive impact. In this report, we showcase examples of companies who are building their evidence base and leveraging it to demonstrate impact and hope that these examples will inspire others to follow suit and demonstrate the value of their EdTech products.

A huge 'thank you' to BESA for helping to make this report possible.

Professor Rose Luckin, Founder EDUCATE Ventures Research



The state of evidence in EdTech 2023

This report is designed to give an overview of the current EdTech landscape and how evidence is increasingly expected and used to successfully demonstrate efficacy, inform decision making, build trust, evaluate impact, develop better products and build profitable businesses.

We include examples of case studies from companies who are building their evidence base and leveraging it to demonstrate impact. We also look to the future and what might be next for the EdTech industry, how measurable impact evidence will be the new currency of conversation as more regions introduce regulatory frameworks and guidelines and how smart data science can help every company, no matter their size, get the best from their data.

Why does evidence matter?

The industry is growing

The EdTech industry has been through a huge amount of change in recent years and the future is predicted to be optimistic after showing significant growth. Business-Leader reported COVID-19 lockdowns and school closures has resulted in 72% growth in the EdTech market in 2020 with the UK attracting 41% of all EdTech investment coming into Europe. In addition, HolonIQ recorded that investment in EdTech globally in 2021 had reached three times pre-COVID-19 levels, they stated that this was "accelerating startups around the world with over \$20B of funding fueled by a massive US and EU investment surge and India's growth charging onwards" as demonstrated in the graph below. HolonIQ also forecast an expected total global EdTech expenditure of \$404B by 2025 representing a 16.3% CAGR, or 2.5x growth, between 2019-2025.

The COVID-19 pandemic has rapidly accelerated the adoption of digital education and created a massive demand for online learning platforms, which has boosted the EdTech industry's growth. With the advancement of AI technology, there are many opportunities for the EdTech industry to expand and evolve. Generative AI and new ways to personalise learning are likely to transform the education sector. Another recent trend we have seen is more established players acquiring smaller companies to gain a competitive edge and broaden their provision. In addition, as education becomes increasingly globalised, EdTech companies are likely to expand their offerings to cater to a broader audience, including non-English speaking countries.

The future of the EdTech industry looks bright, with significant growth potential and opportunities for innovation. However, there are also challenges to be addressed, such as the digital divide, access to technology, and ensuring the quality of educational products. There has also been a decrease in the investment of EdTech in 2022 as recorded by Brighteye Ventures in their recent funding report. However, they remain optimistic about EdTech in Europe as it demonstrated more resilience "with funding falling by 28%, relative to 62% for the US, 89% for China and 45% for India". Despite hundreds of millions of dollars being invested in UK EdTech, only one unicorn (privately held company with a valuation exceeding \$1Billion) has emerged. Educators estimate that 84% of EdTech tools are poorly implemented, and one survey found that only 8% of educators trust the claims made directly by EdTech companies. Educators are looking for evidence: The DfE 2021 EdTech survey reported teachers wanted evidence on the benefits of technology use in education and in 2020 they stated that 50% of UK teachers identified the main barrier to using EdTech as lack of staff knowledge about what products do.

Evidence is at the core of our work at EDUCATE Ventures Research (EVR). We are passionate about using evidence to demonstrate the efficacy of EdTech products. Evidence can also be used to build trust between EdTech creators and users, evaluate educational impact, inform decision making across an organisation and build profitable businesses.

To assess effectiveness: Evidence can help determine whether an EdTech tool is effective in

Cost of EdTech hardware/school

budgetary constraints

Figure 4 Which are the main barriers to using EdTech in the next 10 years?



Staff knowledge in what different EdTech products/tools do Staff confidence with technology Digital divide/access barriers among households Poor or varying quality of EdTech resources Staff skills Staff knowledge in what tools are most suitable for my schools' needs Not relevant / cannot answer My school's leadership not thinking EdTech is important Parents do not think EdTech is a priority Teachers in my school are not willing to use EdTech None of the above 2% 0% 20%

Source: Ecorys teacher survey. n=5,485.

improving learning outcomes, engagement, and motivation. It can also help identify areas where a tool needs improvement.

To inform decision-making: Evidence-based decision-making is critical in education. Evidence can inform decisions about which EdTech tools to adopt, how to implement them into the classroom, lecture hall or home and how to evaluate their impact.

To build trust: Evidence can help build trust in the EdTech industry by providing proof that EdTech tools are effective, safe, and secure. This can encourage educators, students, and parents to embrace technology in education.

To evaluate impact: Evidence can help evaluate the impact of EdTech tools on student learning outcomes, teacher effectiveness, and institutional performance. This can inform future investments in EdTech and improve the quality of education.

To build successful businesses: Evidence can be used to inform decisions to ensure the desired outcome is achieved.



40% 60% 80%



The EDUCATE Programme has worked with over 300 EdTech companies since 2017 so that they can develop evidence-informed products that have a measurable impact on learners. It's research-focused accelerator, based on the Golden Triangle, bridges the gaps between EdTech designers and developers, researchers in education and EdTech, and users, to ensure that EdTech products live up to their promises.

At EVR and in the EDUCATE Programme, we promote the use of The Theory of Change and a Logic Model. The theory of change provides a framework for planning, implementing, and evaluating programs or interventions. By using this approach, you can develop a clear and logical pathway that outlines the steps needed to achieve your desired outcomes, and identify the evidence needed to support those steps. By using the theory of change to guide your program or intervention, you can ensure that your efforts are based on a solid understanding of the problem you are trying to address, the context in which you are operating, and the outcomes you hope to achieve. This can help you to design more effective interventions, gather the right evidence to support your efforts, and make data-driven decisions that lead to positive outcomes for the individuals or communities you are serving.

A logic model is a visual representation of the relationships between the inputs, activities, outputs, and outcomes of a program or intervention. By using a logic model, you can develop a clear and logical framework, which can help you to identify the evidence needed to support your goals. Using a logic model can help you to identify the key activities that are necessary to achieve your desired outcomes, and to measure the effectiveness of those activities using relevant indicators. This can help you to gather the evidence needed to demonstrate the impact of your program or intervention, and to make data-driven decisions about how to improve it.

What's happening now?

Several interesting developments arise from the upsurge in educational technology implementation precipitated by the COVID-19 pandemic.

Firstly, educators and schools have reverted to in person teaching. This is providing them with the opportunity to reflect on the EdTech tools they adopted during the pandemic. Some of these tools may still be viewed as useful, but others will have become redundant with new tools being introduced. Recent developments in AI and the arrival of ChatGTP will also impact on these conversations and possibly even the EdTech tools being selected for use.

Secondly, policy makers have shown an increased interest in EdTech with the publication of new reports such as the DfE EdTech survey and Al Barometer. Governments across the world are starting to explore and introduce frameworks and regulations that EdTech companies must use if they want to sell their products and services within these countries and regions. These frameworks are a step on from previous ICT frameworks such as OECD (2021) or UNESCO (2011), which focused on the role of technology within education. The new breed of framework aims to empower teachers to make informed choices about which EdTech products to use.

For example, in the United States, the Every Student Succeeds Act (ESSA) requires

states to use evidence-based interventions in schools and to evaluate the effectiveness of those interventions. This includes EdTech, and companies may be required to provide impact evidence to be eligible for funding or to be included in state-approved lists of interventions. The ISTE Standards are important within this US context too.

The increased prominence being awarded to evidence can be seen in many of these initiatives. In the UK, when the DfE (2022) asked teachers; 'What policy support would be the most effective in helping schools and colleges get the best out of EdTech in future?', 51% put their first request as 'evidence-based EdTech teaching resources'. This demonstrates the desire from educators for assistance in choosing EdTech products. They have said that they feel overwhelmed with the choice and feel that potentially the pressure should not be on individual teachers or schools to design methods to test EdTech products efficacy.

As EdTech companies strive to be evidence based and demonstrate the efficacy of their products, there are options for certification and a growing number of frameworks to guide EdTechs wanting to conduct their own research. Some examples are Digital promise and their Edtech Pilot Framework and Product Certification, EVR's Edwards, the ISTE Seal of Alignment and the Nordic EdTech Alliance's Nordic EdTech Impact Framework, with its 4 stages of: Planning, Data collection, Data analysis and Reporting.

Case studies of using evidence in EdTech

With our focus on Evidence in EdTech, we wanted to showcase some examples of good practice from the EVR, BESA, and EDUCATE Programme communities which we hope will inform and inspire your own research journey.

s[AI]naptic AMPLIFY LEARNING

sAlnaptic ltd.

sAlnaptic are alumni of the EDUCATE Programme, which supports EdTech companies in producing and communicating the efficacy of their product using the Theory of Change and creating a Logic Model.

sAlnaptic is the only Al-driven web-app for GCSE science that supports teaching and learning by automatically evaluating free-text answers to open-ended, descriptive questions and provides instant personalised feedback, providing targeted areas for improvement.

Developing a Logic Model with EDUCATE enabled sAlnaptic to "develop a culture of research mindset" and embed this mindset into the centre of decision-making in their company. sAlnaptic uses data to drive business decisions and product development, strengthening their confidence in their direction and in their ability to communicate with all stakeholders involved.

sAlnaptic's goal is to create an EdTech solution that is both valued by educators and commercially viable and have used an evidence-led approach to achieve this. In the near future, sAlnaptic plan to share insights with the wider education community to help inform lesson planning, curriculum design and assessments - watch this space!

"Using data to drive our business decisions and product development not only helps us account for all possible factors affecting our outcomes but also ensures that we are developing a product that has a place in the market." - Kavitha Ravindran Co-founder, CCO, CGO sAlnaptic Limited



Oliiki

Oliiki are alumni of the EDUCATE Programme, which supports EdTech companies to using evidence by using the Theory of Change and creating a Logic Model.

The Oliiki app focuses on supporting prospective and current parents to spark their baby's adventures in learning in the first 1000 days of life and build their parenting confidence one play activity at a time. Oliiki use evidence to inform and enhance many areas across their business from product development and strategy to marketing and investment pitching.

Oliiki have used their Logic Model as a key strategic tool, informing directional pivots such as an early shift from school readiness app to a parental self-efficacy app. They advise other EdTech founders to create their own Logic Model and "keep it somewhere you can see it and refer to it often".

"It is only through going through the research and evidence process that you discover your areas of weakness and your areas of strength. In a world of competition, it is the evidence that shows you your uniqueness." - Clare Stead, owner and creator, Oliiki



Purple Mash: A 2Simple Product

2Simple are BESA Members who launched their learning solution for schools - Purple Mash - in 2010 and commissioned research into this product in 2022.

2Simple has been making powerful and creative educational software for learners, schools and educators for over 20 years and is used by learners in over 11,000 schools, in more than 70 countries. 2Simple provide teachers, schools, and educators with the innovative resources they need to inspire and educate the next generation, launching Purple Mash- an all-in-one solution for primary schools- in 2010.

2Simple use evidence to inform strategy and to communicate how their product delivers on its aims to their customers. In 2022, 2Simple commissioned an independent research review which used mixed methodologies to investigate the extent to which Purple Mash is meeting the needs of learners and teachers. Conducting their research in five phases between January and July 2022, data on Purple Mash was generated through engagement across 1,003 schools in England.

A number of findings emerged from this research, including identifying that the number of children's accounts on Purple Mash equated to approximately 48% of all primary aged children in England.



Across Cultures

Learning Village is an EAL blended reading programme developed by Across Cultures which supports learners of any language background who have low levels of literacy, in learning how to read. Learning Village achieves this by teaching the components of reading including vocabulary and language structures, phonics, spelling, pronunciation, comprehension and fluency.

Across Cultures have used evidence to improve and enhance the Learning Village product and test their impact, measuring educational attainment using external reading assessments alongside evaluation questionnaires. Measuring the progress of learners through these measures, Across Cultures were able to show the impact of the Learning Village on users reading age improvement as well as customer experience and self-perception of learner progress.

"Using evidence is not just about measuring the user experience and how the learner achieves according to your own internal measurements. Sometimes you need an external moderation to truly test impact." - Caroline Scott, Across Cultures



Off2Class working with Oriel Square

Oriel Square are BESA Members who have supported Off2Class - an EdTech teaching and learning solution for ESL teachers -in planning, producing and communicating research to evidence impact for the benefit of their users.

Off2Class saves hard-working ESL teachers time in planning, administration and lesson preparation so that they can focus on their most important job: helping students to learn English. From its inception, teacher input and learning science have been core to what Off2Class does, in both curriculum and content.

To explore and demonstrate the efficacy of their product, Off2Class have partnered with a third-party researcher – LearnPlatform - to develop and work with a Logic Model. Evidence collected through the Off2Class platform data and customer case studies has been used to explore how teachers and learners use the platform.

During the Covid19 pandemic, Off2Class re designed its programme to help English language learners meet the global standards set by the CEFR, with the goal of eventually becoming teachers. The intervention was deployed as a pilot in three countries in the MENA region. Using evidence to measure the impact of the pilot, Off2Class were able to successfully replicate and redeploy their model, demonstrating that 52% of learners increased by one CEFR level, 11% increased by 3 levels and 2% increased by 4 levels.

"Evidence is a foundational part of creating tools that improve student outcomes. The approach to evidence is a continuum - Evidence is a cycle, not an end state." - Nathan Martin, Off2Class

Looking to the future

In the UK, as in many other parts of the world, schools and colleges feel a huge sense of responsibility to demonstrate the efficacy of an EdTech product they want to use, as do many parents and students. And yet, with thousands of EdTech products and services available, it is little surprise that educators, trainers, parents and students find the choice overwhelming.

This trend from governments to require EdTech companies to demonstrate their impact and to show that they have an effective process in place to generate good quality evidence is only going to spread over the coming months and years. It is therefore wise for every EdTech company to ensure that they have started their evidence and data journey so that they are equipped to meet whatever regulatory requirement exists wherever their customers are located.

In parallel with the growing trend for regulations and guidelines about evidence and impact, there is an increased availability of smart data science tools that can help every company get the most from their data. These tools can help companies make sure they learn the most important information about their customers, their product and their business in the most effective way. In the next issue of this review, we will report in more detail how AI and data science can super charge every company's impact evidence generation and ensure they meet the regulatory frameworks for whatever region of the world their customers require. You can also get more information from EVR, and updates on the EDUCATE Programme, by emailing hello@educateventures.com

In any conversation about data, it is important to engage with the ethical implications that data collection and processing bring. Anyone who handles data must be mindful of the ethical principles to which they should adhere to ensure their actions bring benefit and reduce the risk of harm to those whose data is involved. Different regulations apply in different parts of the world. For example, in the UK, the Data Protection Act 2018 (DPA 2018) applies to all organizations that process personal data in the UK, it embraces and adds to the General Data Protection Regulation, introduced by the European Union (EU) in 2018.

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