

# BBC micro:bit - the next gen Report Summary

Supporting the next generation of coders and  
digital creators

2025



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# INTRODUCTION

## The Next Gen programme

Since its launch in 2014, micro:bit has made a significant impact on the development of digital skills across teachers, parents and students. The initial distribution to one million Year 7 students in 2016 delivered positive results by transforming perceptions of digital skills; making them inclusive and accessible for all.

Following this success, the next step was to engage with a younger, primary school audience of students, their parents and teachers, to educate and develop their knowledge of digital skills, including coding and digital creativity, inspiring the next generation of digital creators.

In 2023, micro:bit in partnership with BBC Education and Nominet launched the BBC micro:bit – the next gen campaign, to extend its reach and support this audience in developing their digital skills, resulting in a total of 21,128 primary schools registering for donations across the UK.

## The research

Platypus Research was commissioned to assess and track the impact of the roll out by monitoring the views and behaviours of primary school teachers, children and their parents across three stages of research spanning 2023-2025.

Our research has shown that making coding a fun, exciting and accessible experience through micro:bit has positively impacted children's digital learning and teacher's experience of teaching digital skills.

**This report summarises the key insights from a major piece of research with primary school teachers, children and their parents across three years.**



Photo credit: BBC

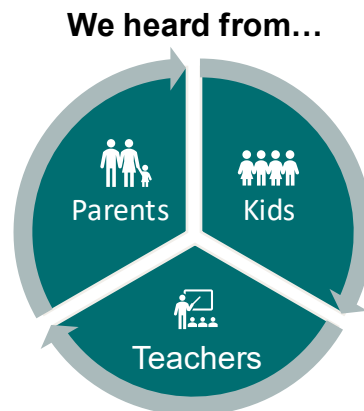
<https://www.bbc.co.uk/mediacentre/latestnews/2017/microbit-first->



# OUR AIMS & METHODOLOGY

An iterative mixed-method approach was used to 1) collect robust data measuring the impact of micro:bit and 2) hear and observe, first-hand, the experiences of using micro:bit in primary schools.

Data collection spanned three 'waves' of research, which were timebound phases set up to track the progress of micro:bit and enable comparisons throughout the research period. This meant we could track changes and monitor impact over a long period of time.



## Areas of focus over the three waves included:

- Awareness of micro:bit
- Usage
- Motivators and barriers to use
- Outcomes and impact

1

**2023**

Understanding the current digital landscape in primary schools and gathering baseline measures

**Survey with**

- 400 primary school teachers
- 1,000 primary school children aged 7-11 year and their parents

2

**2024**

Tracking impact against baseline measures and in-depth exploration of micro:bit experiences

- **Repeated survey**
- **Online forum** with 25 children and parents
- **School visits** at 6 schools across England, Wales, Scotland, Northern Ireland

3

**2025\***

Tracking impact against baseline and 2023 findings, and further exploration of individual experiences

- **Repeated survey**
- **School visits** 10 schools across England (4), Wales (2), Scotland (2) and Northern Ireland (2)

\*with a particular focus on the experiences of students with SEND and female students, acknowledging their unique and differentiated needs, to inform a more comprehensive understanding of the Foundation's objectives to support gender equity and inclusion.



# RESEARCH SUMMARY

## Overview of the next gen impact

The next gen programme has positively impacted the digital learning and skill development across a primary school audience. Findings from the three waves of research suggest a positive correlation between micro:bit usage and teacher / student confidence, knowledge and enjoyment in Computing and Coding, as well as development in broader skills.

87%

of the UK primary teachers surveyed agreed that children's knowledge and skills of coding and programming has increased since using micro:bit.

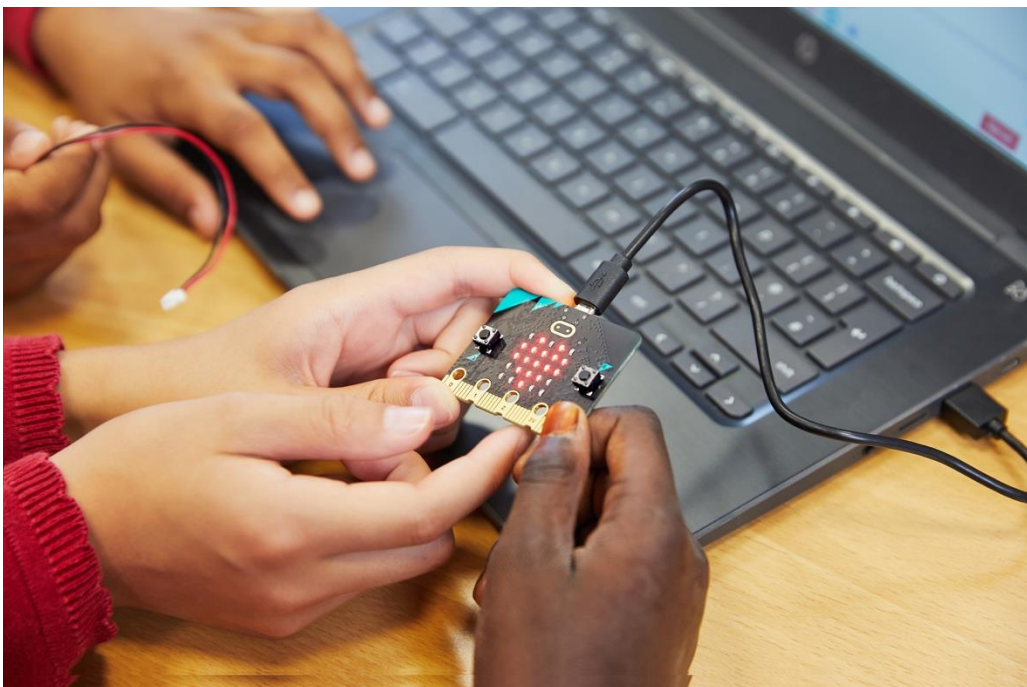
79%

of teachers report seeing other skills, such as logical reasoning and communication, improve in their students as a result of children using micro:bit.

As well as skill development, using micro:bit has increased enjoyment and interest in Coding, Computing and Technology. From the child's perspective, students who had been taught with micro:bit were **almost twice as likely (86%) to show an interest in pursuing a job linked** to coding or programming in future, compared to students who had not used micro:bit.

95%

of students surveyed agreed that they'd like to continue using the micro:bit in lessons.



# THE DIGITAL LANDSCAPE

## What's it like teaching digital skills in primary schools?

Throughout the research, we found that, although parents and teachers acknowledged the importance of developing digital skills in primary school children, there were several factors which impacted their learning, including a general lack of funding, budget, and time. Many teachers reported having low confidence and knowledge in the subject, particularly when it came to more advanced skills such as coding. This lack of resource (time and funding) only fueled the confidence gap, meaning children's digital learning could be restricted, or the responsibility passed to a more experienced teacher.

“ I think it's [digital skills] really important, especially in the world, that we're living in today. You know, it's very technology based.  
Y4 Teacher, England



Photo credit: BBC

### The place of digital skills in primary schools

Although being a part of the curriculum, digital skills weren't always viewed as a 'priority' in schools, despite teachers acknowledging its importance. The subject was often viewed as more 'specialist' and with teachers being time poor, many having low confidence in the subject, and a lack of funding for training and resources, Computing and Technology wasn't always top priority. Because of this, it was common for digital skills to be taught, or championed, by a teacher with more digital experience. We found that the importance placed on digital skills in primary schools often came down to its perceived importance amongst SLT and/or a dedicated teacher who was advocating for it across the school.

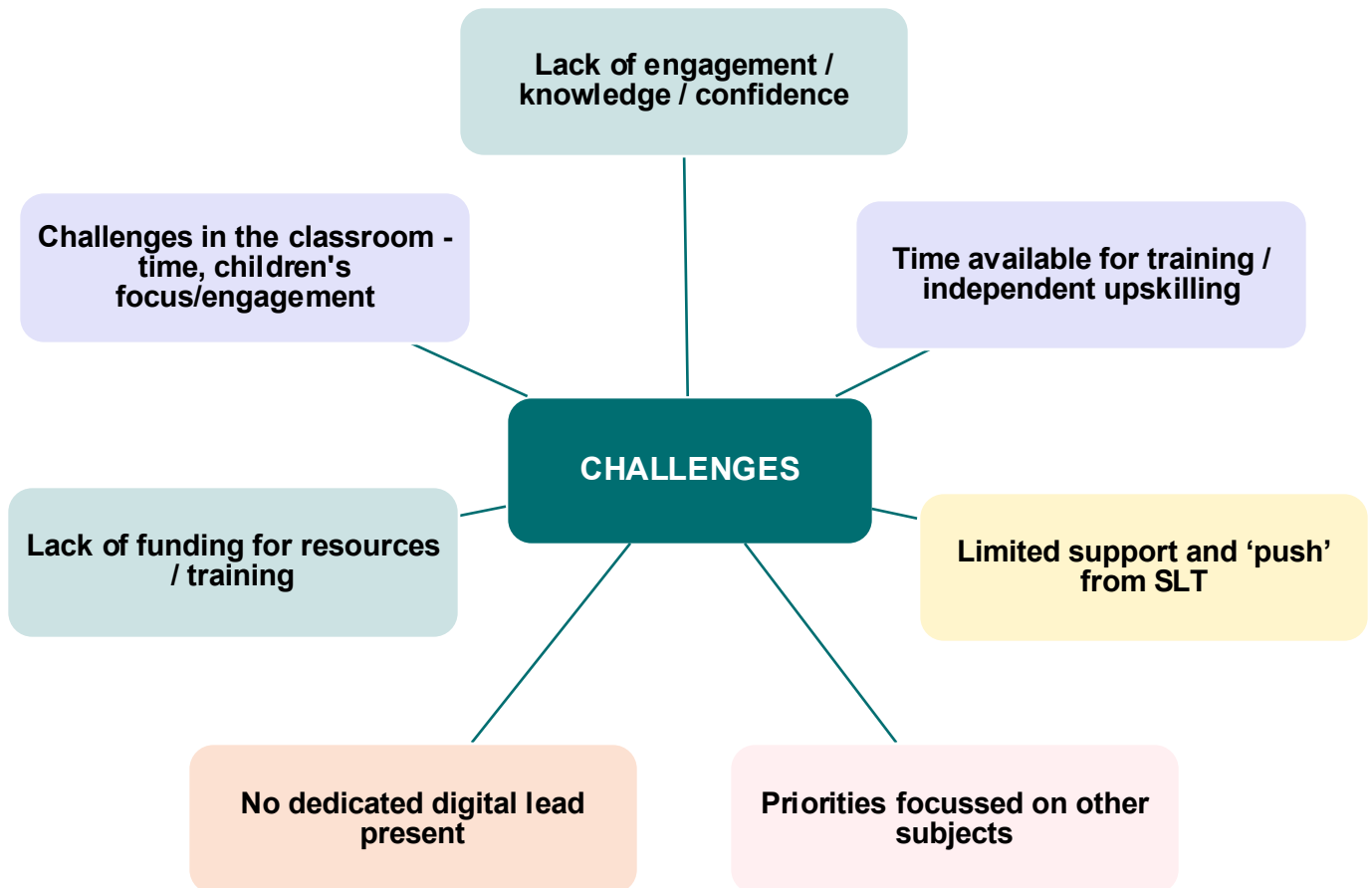


# THE DIGITAL LANDSCAPE

## Teaching computing in primary schools

There are several challenges faced by teachers when it comes to teaching digital skills and computing in schools. Each factor can impact teacher's confidence and motivation to teach the subject.

### COMMON CHALLENGES FACED



“ Teachers don't feel comfortable not knowing all the answers which is a barrier to ICT teaching.

I value how technology encourages student-led learning, but this can be challenging for teachers used to being "in charge"  
P7 Teacher & UICT Lead, Northern Ireland



# THE DIGITAL LANDSCAPE

## What do parents think about digital skills in primary school?

Parents agreed with teachers on the importance of teaching digital skills to primary school children, with safeguarding being a top priority (for both parents and teachers). This perception only increased over time (“importance of computing technology as a subject for your child’s age”: 42% in 2023 vs. 58% in 2025).

However, many parents were only moderately confident in their abilities to support their child’s learning in this subject, and felt a lack of support to understand it. Because of this, schools are often the main, or only, opportunity for children to learn more advanced digital skills such as coding.

### Access to opportunities in computing and technology

Throughout the research, we saw improvements in parent’s perceptions of access to opportunities when it came to digital skills. In 2025, parents are more likely to agree that all children have the same opportunities to develop computing & technology (which is thought to be very important).

% parents who <u>strongly</u> agreed that “all children have same opportunities to develop computing and technology skills”	
2023	25%
2024	31%
2025	35%



#### Although Parents of Girls lag behind Parents of Boys (2025):

- Parent of girls: 28% strongly agreed that “all children have same opportunities to develop computing and technology skills”
- Parent of boys: 41% strongly agreed

“I think it is extremely important - it's the future. It is interesting that my child knows more about computing and technology than I do, and he is only 8...but I think it is crucial that he is taught about computing and technology at his age.

Parent



Photo credit: BBC



# THE DIGITAL LANDSCAPE

## Children's attitudes to computing and technology

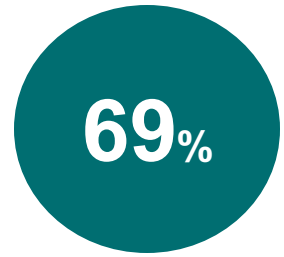
Children's attitudes and awareness to Computing, Technology and Coding have increased considerably since 2023. Enjoyment of the subject was often linked to ease of understanding and a sense of achievement.

### Early exposure can spark interest and intercept misperceptions

Those with initial interest in digital skills often had prior exposure and/or awareness of the subject through family. This meant they already had a level of knowledge which alleviated any misperceptions or stereotypes about the subject.

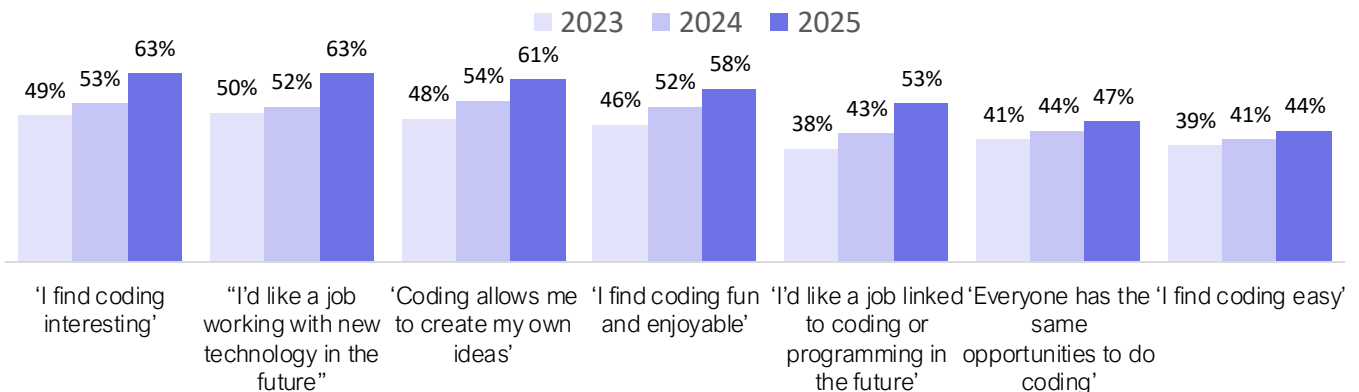
### Are gender stereotypes at play?

Boys tended to be more positive towards the subject than girls, which is likely a result of earlier exposure through gaming, and a general enjoyment / confidence in problem solving (as we discovered through school visits). Those with a particularly strong interest were also, more often than not, boys. However, this isn't to say that girls didn't enjoy the subject at all, and we did find a real mix of favourite subjects across genders, with common factors of enjoyment being expression, play and a sense of achievement. So, we didn't see low engagement / positivity in the classroom due to stereotypes as such, but rather differences in personal interest and prior exposure / knowledge which made them more confident and consequently more engaged, which can be fueled by stereotypes.



**Of children claim to know what coding is in 2025 (vs. 58% in 2023)**

“ I knew about computing already. My dad works for a tech company so I'd heard about it... I'd like to make video games when I'm older. Y5 girl, England



\*All percentages were higher for boys (2025)



# THE NEXT GEN DONATION

## How is micro:bit used in primary schools?

21,128

Primary schools registered for donations across the UK.

40%

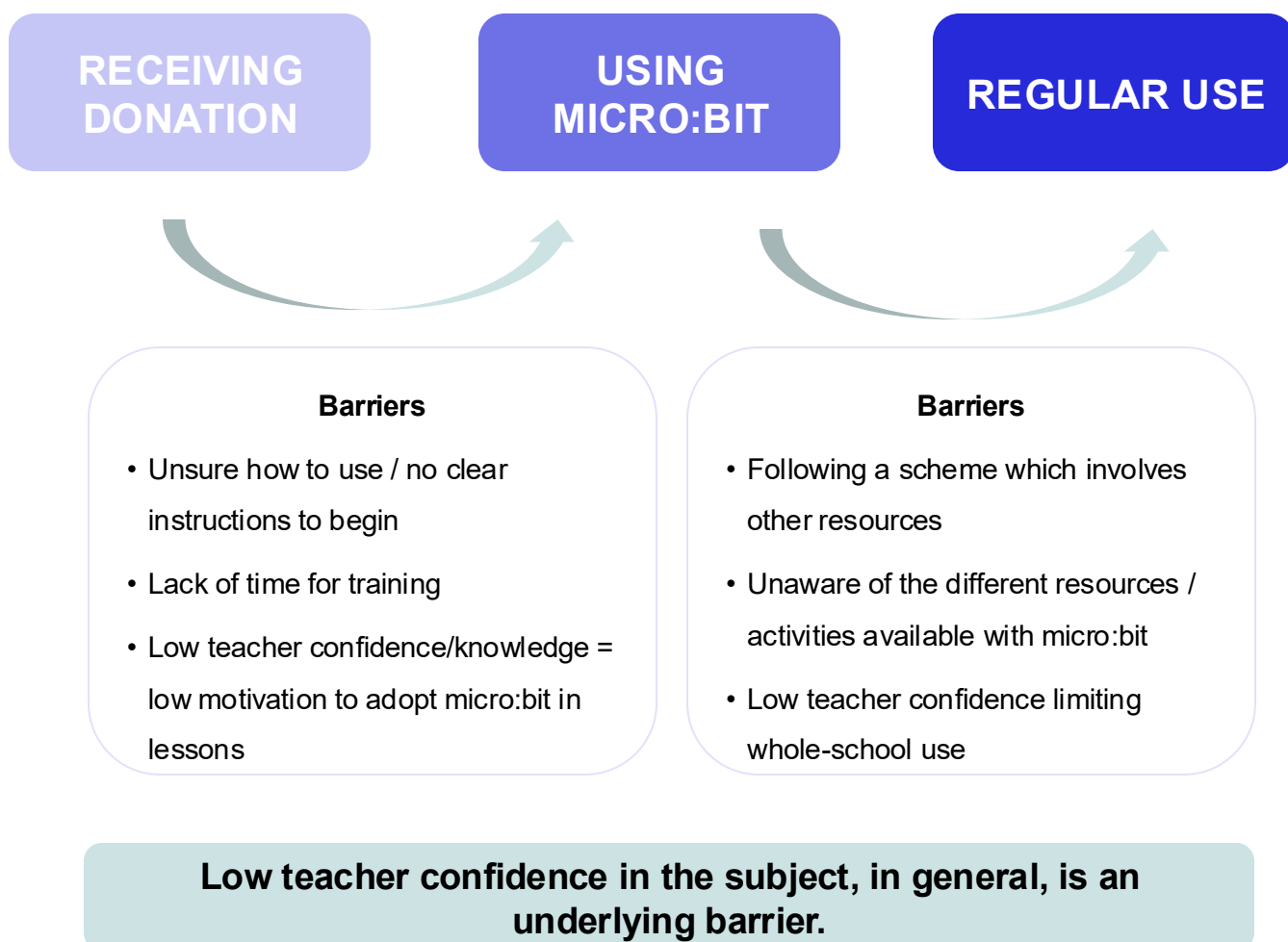
Of teachers involved in the 2025 survey either use, or plan to use, micro:bit in their schools

46%

Of teachers involved in the 2025 survey are unaware of micro:bit

### Awareness and usage

While awareness has increased over the three years, there are still a large percentage of teachers who are unaware of micro:bit. As well as this, we found a 'sticking point' at the point of receiving the donation which prevents initial usage. So, while schools were receiving donations, not all were adopting micro:bit in lessons due to several key barriers:



# THE NEXT GEN DONATION

## How is micro:bit used in primary schools?

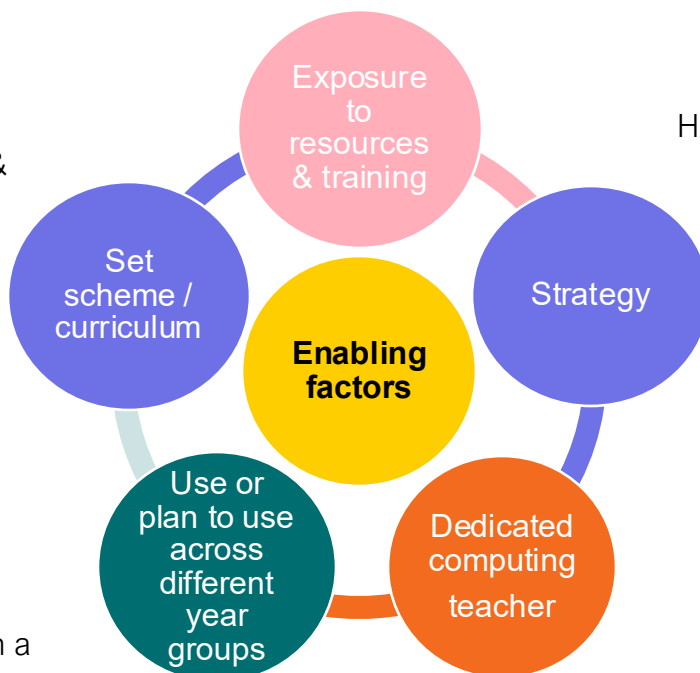
### What encouraged those who did use micro:bit?

Key factors for encouraging initial use include having a dedicated computing teacher who advocates for its use across the school, and the school following a set computing scheme which includes micro:bit. These factors alleviate hesitations around time taken to plan lessons or upskill, as this is done via the scheme / dedicated teacher.

“ If the Digital Lead wasn't here to support me, I'd probably have taken one look at it and thought 'that's not for our school, I can't do that.'  
P2 Teacher, Scotland

Removes barriers by outlining lesson plans & skill progression

Using micro:bit as a progression rather than a stand-alone topic in one year group



Have a plan for how to use across year groups and embed in curriculum

When it works well, is often the catalyst to the other enabling factors

### Mindset over expertise

“ A lot of the time the kids know more than we do so I think that can put people off teaching it! But it's actually great when you learn something from them, a few times one of them has discovered something that I didn't know it could do. We're all learning together! It shows them it's okay to not know and to make mistakes too.

Y3 Deputy Head and Curriculum & Learning Lead, Wales

An interesting point made by the teachers we spoke was the importance of accepting that they don't know everything about micro:bit or coding, being happy to be on a learning experience *alongside* the children, and accepting that mistakes might be made but are solved *together*. Once teachers had removed this mental block, they were more open to using micro:bit and trying new activities.

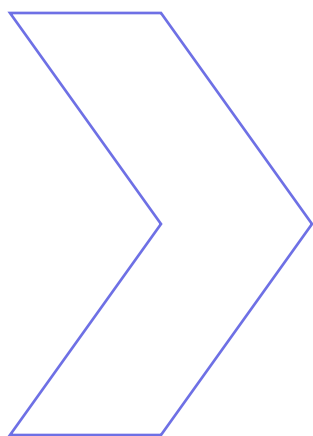


# MICRO:BIT IN THE CLASSROOM

## The importance of teacher confidence

### Teacher confidence can limit how micro:bit is used

We found that teachers with higher knowledge / confidence to teach computing and technology explored more creative / advanced activities and were embedding micro:bit as part of other subjects. This was emphasised further in schools with a Digital Lead (or equivalent), who had more time and ownership of exploring micro:bit use. This meant schools with no dedicated digital lead or fewer confident/experienced computing teachers were often limited to more basic activities (although teachers and students still enjoyed these).



### Teachers who were hesitant to adopt micro:bit in their lessons had a need for a degree of confidence / knowledge which they perceived as...

- ✓ Advanced knowledge in Computing, Technology, and Coding
- ✓ A level of experience in the subject
- ✓ Knowing how to adapt and overcome any issues that arise (e.g. experience debugging)



### But what really helped was...

- ✓ Adopting an attitude of trial and error, experimentation, learning *together* as a class, not as teacher / student
- ✓ Awareness of and exposure to resources and support material
- ✓ Hands-on training with computing and coding organisations
- ✓ A dedicated teacher who advocated for the use of micro:bit and upskilled the teachers in their school

**The impact of teacher confidence on using micro:bit to its full potential highlighted the importance of reassuring teachers and supporting them to achieve the level of confidence they require to adopt micro:bit in their class.**



# THE NEXT GEN IMPACT

## What has happened since the programme launched?

The success of the next gen programme has progressed across the research, made evident by the survey data and from observing and speaking to children and teachers first-hand.

### Children

Micro:bit has positively changed the experiences of many children. It hasn't just impacted skills relating to computing, coding and technology, but has also supported the development of wider skills and children's enjoyment of the subject:

#### Knowledge and technical skills

- Understanding of technology
- Logical skills
- Terminology
- Debugging

#### Creativity and experimenting

- Student-led, practical learning
- Taking tasks further/adding personal elements

#### Transferrable skills

- Resilience
- Problem solving
- Collaboration
- Patience

#### Confidence increased

- Sense of achievement
- Taking tasks further
- Willing to try & make mistakes

**88%**

of students that have been taught with micro:bit say computing and technology is more enjoyable and fun than other subjects, just under a 40% increase versus non-users

**90%**

of young people agreed that coding allows me to create my own ideas, after learning with micro:bit

**86%**

more students agreed they'd like a job linked to coding or programming when comparing those taught with micro:bit versus those that had not used micro:bit



# THE NEXT GEN IMPACT

## What has happened since the programme launched?

### What is micro:bit doing well in primary schools?

- ALL children (irrespective of ability) can take part and resolve issues themselves
- Children have the creative freedom to come up with their own ideas, out of nothing – making coding tangible from concept to execution
- It allows experimentation and encourages problem-solving. Children are less scared to make mistakes as they can go back and 'debug'
- Activities are interactive and interesting. micro:bit brings coding to life by applying it to real-world contexts

“ Children like playing around with something that has an immediate result. With micro:bit, they get results straight away and can see it on something that's not just a screen. They get a sense of achievement.

Year 6 Teacher, Wales



Photo credit: BBC

### According to the children we spoke to, micro:bit..

#### LET'S ME BE CREATIVE

“I like coding, it's really fun. You can make it do whatever you want. I made micro:bit play a piece of music composed by me!”

Y5 boy, England

#### IS FUN & INTERESTING

“It's really fun! I liked the moisture one where we used the clips to see the levels in the dry and wet soil. It was really fun to set up and then really interesting to see the different levels”

Y6 girl, England

#### MAKES CODING EASIER

“I do like coding. At first it was scary but now we've done this I can understand it and I like it”

Y4 girl, Wales



# THE NEXT GEN IMPACT

## An involved and inclusive coding tool

micro:bit was used, and enjoyed, across children irrespective of gender and additional needs.

### SEND students

Micro:bit lessons, in particular, are motivating for SEND students. Teachers with SEND students reported that in many cases, they already had a strong interest in computing and technology. But for those who didn't or who struggled with the concept, teachers found micro:bit easily adaptable to different skill levels, and because it lends itself to peer learning and collaboration, oftentimes other students were on hand to mentor. That being said, having additional support such as a Teaching Assistant was beneficial in cases of adapting activities and extra attention.

“ I think [coding] is quite hard but it can be easy to put the blocks together and make a pattern. I'm making a T Shirt shape. I like seeing it on the micro:bit.  
Y5 girl (SEND), Wales

78%

of teachers agree that there is something in particular about micro:bit lessons that really engages their SEND students.

Parents of children with additional needs are particularly positive about the experiences of using micro:bit, due to its impact on their child but also on their own confidence and knowledge in computing and technology. However, there is a gap in parents' perceptions and the reality of micro:bit's impact: parents of children with additional needs who *haven't* used micro:bit, find the *idea* of it less appealing and report having lower confidence to use.

### % parents who strongly agreed

Child enjoyed using micro:bit	74%
Child's confidence of computing & tech has increased	74%
Child's confidence of coding & programming has increased	71%
My own confidence / knowledge of computing & technology learning has increased	73%



# THE NEXT GEN IMPACT

## An involved and inclusive coding tool

### Girls

Girls were also highly engaged in micro:bit lessons, and told us that it's fun, interesting and makes coding easier. This was backed up by teachers, who reported that there is no real difference in engagement between boys and girls in micro:bit lessons. The main cause of difference was their interest in digital skills *in general* which tended to be skewed towards boys, but micro:bit was said to make the subject more interesting even for those who didn't particularly enjoy the subject as a whole.

**81%**  
of girls who recalled being taught with micro:bit agreed they'd like a job linked to coding, compared with just 37% of those who hadn't been taught with micro:bit

The general benefits of micro:bit are what makes it appealing to different types of children; it makes coding lessons involved, interactive and puts coding into *their* world.



Enjoy and engage with micro:bit more due to sensory, tactile experience



Activities can be adjusted to skill level



Success and achievement from seeing the results on the micro:bit itself



Simplicity of initial activities encourages those who may feel usually feel daunted by coding and builds their confidence to try new things



Those who are highly skilled / interested may take on a peer mentor role in the class



Those who struggle with computing / coding skills are paired with a more advanced student and are supported by others who take on a peer mentor role in the class



# THE NEXT GEN IMPACT

## Teachers agree about the positive impact of micro:bit on their students

As well as reports from children themselves, teachers have also noticed the positive impact of micro:bit on children's digital development. Teachers praised micro:bit for encouraging children to take initiative, experiment, and learn from each other.

87%

of teachers say children's knowledge and skills of coding and programming has increased since using micro:bit.

79%

of teachers have seen other skills improve (e.g. logical reasoning, communication) as a result of children using micro:bit.

**Not only have teachers noticed the impact of micro:bit on developing children's skills in computing and coding, but also their increased enjoyment in the subject.**

“ I encourage them to challenge themselves and expand. They were doing the emoticon activity and one of them came up and wanted to put happy music on so I said go on then!

**Y5 & 6 Teacher & Digital Lead, Wales**

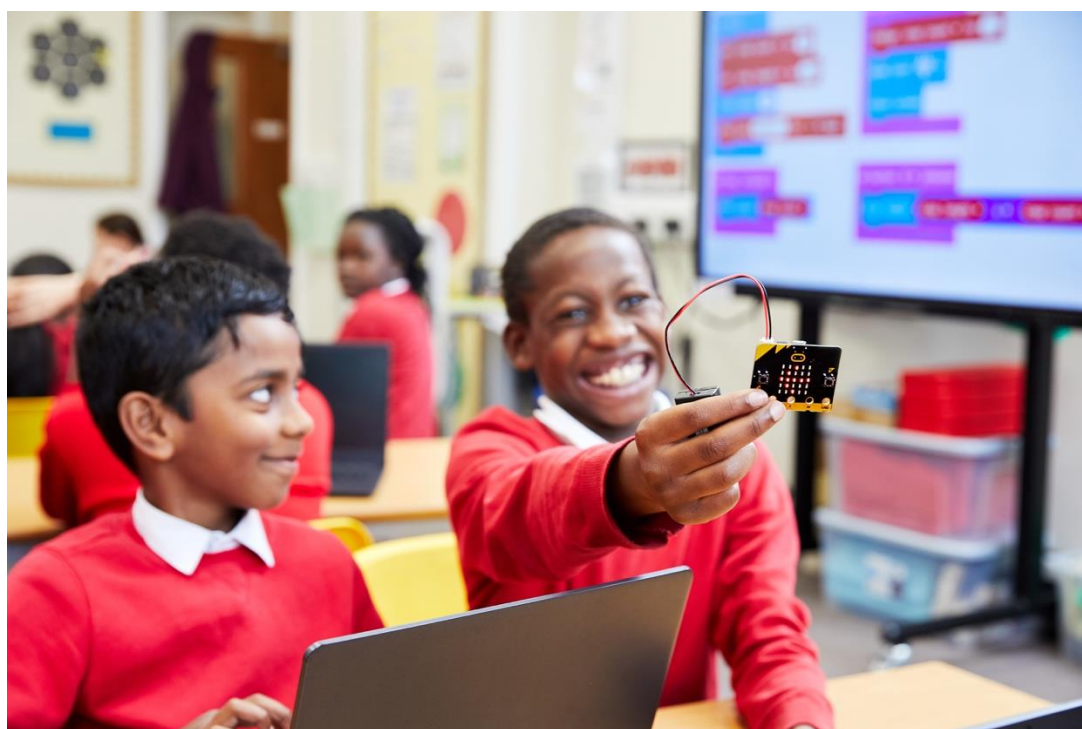


Photo credit: BBC



# THE NEXT GEN IMPACT

## How has it impacted teachers?

Teachers that used micro:bit had a positive experience. Even those who found the idea of teaching coding, computing and technology daunting to begin with, highlighted how micro:bit has helped by conceptualising the skills, and being easy to use and figure out.

**After using micro:bit, teachers were motivated to use it again and saw the benefits amongst their class and themselves.**



Photo credit: BBC

### Teachers say micro:bit is...

- ✓ Easy to figure out (after through training / resources)
- ✓ Easy to adapt to different abilities / levels of concentration
- ✓ Easy to engage children in the lesson
- ✓ Fun and enjoyable
- ✓ A group learning experience, encourages peer learning and collaboration
- ✓ Rewarding

### Resources and training are vital to teacher's understanding, motivation, and inspiration

micro:bit resources and training through external providers were often the initial 'push' to use. They increase understanding and confidence and provide inspiration for activities. Teachers praised the structured lesson plans, ideas for adapting to skill level, and easy-to-follow video tutorials.

87%

of UK primary teachers that recalled training resources agreed that using micro:bit resources has **'increased my confidence in teaching computing and technology'** (2025)

However micro:bit isn't always used to full potential due to low awareness of resources and inspiration for how it can be used. There is a definite need to showcase the range of activities and how micro:bit can be used.



# THE NEXT GEN IMPACT

## What's the future for micro:bit and the next gen programme?

There is a definite appetite for future use amongst teachers and students who have used micro:bit in school.

### Beyond the classroom

Some schools have already embedded it into their coding clubs, and others are starting up coding clubs out of demand. Some children even purchased their own micro:bit to use at home and many expressed wanting one, but with low parental knowledge / awareness in the subject in general, they are unaware they can.

**The vast majority of those who have used micro:bit in lessons are motivated and inspired to use it again.**

**95%**

of students that had been taught with micro:bit agreed that they'd like to continue using it in lessons

**Over 80%**

of the teachers who have used micro:bit say they would recommend to other teachers

**Over 90%**

of the teachers who have used micro:bit intend to use it next year

There is strong potential to expand the reach of micro:bit with a primary school audience and continue to positively impact their coding development. This can be done by:

1. Increasing awareness of micro:bit across schools / teachers who are currently unaware
2. Supporting and encouraging schools who have received donations to take the first step to adopting micro:bit in lessons
3. Expanding into at-home use
4. Working with teachers to reduce barriers to use and raise awareness of the range of activities and creativity that can be had with micro:bit



# OPPORTUNITIES

## How can micro:bit continue to support the development of digital skills amongst a primary school audience through micro:bit?



### Support schools and teachers to maintain use and encourage uptake

#### Encouraging uptake and maintaining use

- Increase awareness of the support, resources and training that's available
- Bring hands-on support and training to teachers to help increase confidence
- Continue partnering with external computing organisations and schemes
- Encourage regular use by supporting schools with a strategic plan for embedding it across the curriculum and showcasing micro:bit's full potential
- Highlight micro:bit success stories, challenge misperceptions and show less confident teachers that it *is* for them



### Expanding at-home reach

#### Challenging coding perceptions and increasing exposure to micro:bit

- Consider ways to challenge parent's misperceptions about coding and increase their confidence / knowledge
- Consider how to bring their child's coding development *to them* to increase their involvement and exposure to support and resources
- Increase awareness of micro:bit and its potential for use at home
- Highlight the wider benefits of micro:bit, such as creativity, experimentation, problem-solving and collaboration



# ACKNOWLEDGEMENTS

Thank you to

- The schools and teachers who collaborated with us and supported us the fieldwork- arranging school visits, welcoming us into their schools, and completing the survey. The open and honest responses and discussions have been paramount to this research and are greatly appreciated.
- The children and their families, also for their honest feedback and telling us about their experiences. Seeing how the micro:bit is used ‘in action’ and observing the joy and challenges in real time has been vital for understanding its impact and future opportunities.

It's only with the support and contribution from respondents that we can carry out important research to understand, evaluate and improve.

