



Texas Advanced Computing Center

# Micro:bit Educational Foundation U.S. Pilot

## 2025 Evaluation Report: Executive Summary

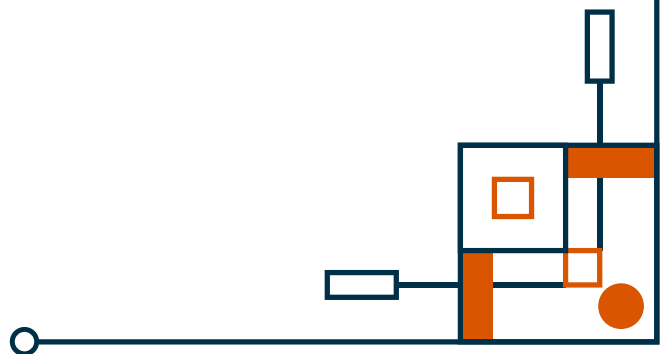
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Prepared by

TACC Evaluation Services



with support from  

## Project Overview

In 2025, with funding from Google.org, the Micro:bit Educational Foundation partnered with the Los Angeles County Office of Education (LACOE) to launch a pilot project in the United States (US). The project aimed to provide training, curriculum, and resources to 3rd through 5th grade teachers from at least 80 Los Angeles County schools, focusing purposely on locations that serve students who are historically underrepresented in Science, Technology, Engineering, and Mathematics (STEM) and Computer Science (CS) education in order to increase equitable access to and broaden participation in physical computing and CS.

The pilot project involved co-designing teacher professional development (PD) and teaching resources, delivery of teacher PD, and providing kits of 10 micro:bits and supporting resources to each participating teacher. Participating teachers were trained in the summer and early fall and were asked to implement the micro:bit resources in their classrooms by October 2025 toward the goals of increasing teacher and student enjoyment of, confidence in, and interest in CS.

## Evaluation Overview

The University of Texas at Austin (UT) Texas Advanced Computing Center's (TACC) Evaluation Services team employed a mixed methods research design to assess the implementation, outcomes, impacts, and learnings of the pilot project. The evaluation team reviewed project documents, such as micro:bit lessons, materials, reports, and training participation data. They also obtained California Department of Education (CDE) data to understand the characteristics of participating schools. TACC administered online Teacher Pre- and Post-Surveys before and after the training and a Teacher Follow-up Survey after classroom implementation. Evaluators had a survey response rate of 95% for the Teacher Post-Survey and 61% for the Teacher Follow-up Survey. Teachers administered a Student Assessment to students with which they implemented micro:bit lessons. Additionally, to provide more in-depth information about implementation, TACC conducted interviews with an intentionally selected sample of teachers, purposefully designed to provide data from educators serving a variety of locations and grade levels.

## Key Evaluation Findings

### Project Reach

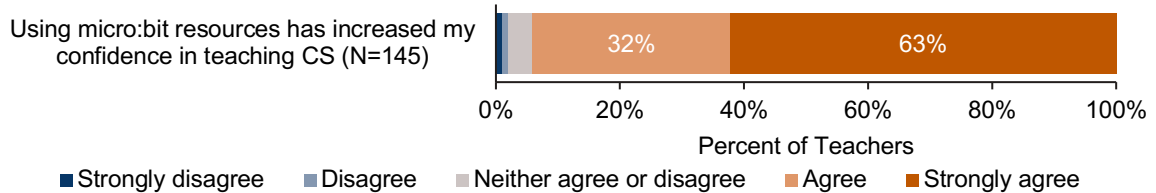
**The project successfully reached teachers and students in underserved schools.**

- The pilot trained 154 teachers in 84 schools and 28 school districts to integrate CS into instruction using micro:bits.
- Almost all (90%) of the schools were Title 1 schools, indicating they served economically disadvantaged students.
- Teachers participating in the training reported using micro:bit with 3,172 students by the time they completed the Follow-up Survey; the students' grade levels spanned from 1-8, with most (84%) students in grades 3-6. Of the 725 students completing the Student Assessment, 51% were male, 43% were female, and 6% indicated they preferred not to provide their gender.

## Training Effectiveness

**Teachers indicated that the micro:bit training effectively improved their capacity to teach and integrate CS in their instruction.**

- Nearly all teachers were satisfied with the training (97%) and agreed that the training met their individual learning needs (98%).
- After the training, a higher percent of teachers agreed they had the knowledge and skills (42% pre-survey, 82% post-survey) and resources (34% pre-survey, 86% post-survey) needed to integrate CS than they did before the training.
- 95% of participating teachers strongly agreed or agreed after the training that using the micro:bit resources had increased their confidence in teaching CS.



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**“After participating in this professional development, I realized the ease of using micro:bit to support CS integration within the lesson in a more engaging way. This will allow students to take control of their learning through a hands-on approach.”**

**-Teacher**

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## Teacher Implementation

**Teachers varied in how they used the micro:bit device and training resources.**

- Over three quarters (78%) of the Teacher Follow-up Survey respondents implemented the micro:bit resources before completing the survey. The other teachers explained that they planned to implement micro:bit in the future and/or cited challenges such as lack of time or competing priorities, needing additional resources, and other school factors.
- The most common ways teachers used the resources were teaching students during the school day (55%) and/or sharing them with other educators (27%). Some used them to teach students outside of the school day (16%), support other educators’ implementation with students (15%), and/or train other educators (11%).
- While about half (51%) of the teachers implementing micro:bit resources used them in CS as a standalone subject, many teachers implemented them in other subjects such as science (46%), math (30%), non-CS technology (21%), and/or English language arts (10%).
- Most (87%) of the teachers planned to teach with the micro:bit device and integration resources in the future.

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**“The project has opened me up to new possibilities for instruction as my students can learn about the endless ways to use technology in the classroom.”**

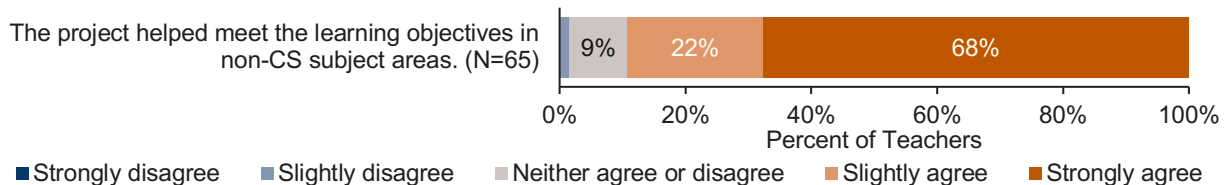
**-Teacher**

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## Teacher and Student Outcomes

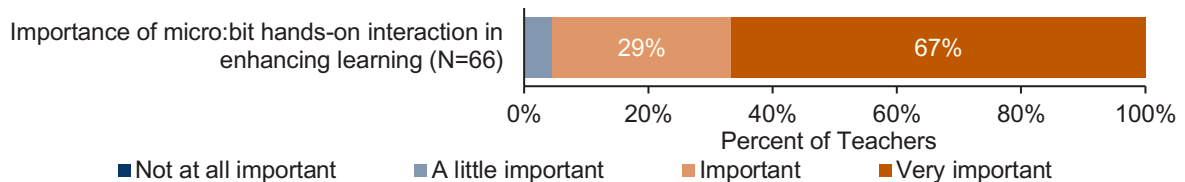
### Teachers largely saw micro:bit as a valuable teaching tool.

- Almost all (90%) teachers strongly agreed or agreed that the project helped them meet learning objectives in non-CS subject areas.
- Over half (55%) of the teachers felt that the micro:bit device and integration resources were more effective for helping meet learning objectives in non-CS subjects, compared with other resources. About one-quarter (24%) reported that they had about the same effectiveness.



### Using micro:bit provided positive student learning experiences.

- Most Teacher Follow-up Survey respondents that implemented the micro:bit resources agreed that students had an improved quality of learning experience in CS (98%) and in non-CS content areas (81%) as a result of using micro:bit resources.
- Almost all (96%) teachers said that the hands-on interaction provided by the micro:bit was important or very important in enhancing students' learning.
- Nearly all (99%) teachers agreed that students increased their enjoyment in engaging with CS as a result of using micro:bits. Similarly, 85% of female students and 89% of male students agreed they enjoyed learning with micro:bit.



### Teachers and students reported STEM and CS student impacts.

- Nearly all (96%) teachers agreed that students increased their learning skills (e.g. creativity, problem-solving, collaboration, and/or communication) as a result of using micro:bits.
- The majority of teachers indicated that at least 75% of the students they taught with micro:bit were more engaged (88%) and confident (77%) in learning digital skills or coding and were more interested in pursuing further STEM studies as a result of using micro:bits (72%).
- Most students who took the assessment agreed that using micro:bit helped them think coding is a useful skill to learn (73%) and that they learned about coding (79%).

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**“The project will allow my students to explore content they are excited about and gain interest in coding and other STEM careers.”**

**- Teacher**

**“My favorite part of using micro:bit was coding what I wanted it to do and seeing my vision come to life.”**

**- Student**

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## Conclusion

The US Pilot project successfully met its goals which included:

- increasing district and school access to physical computing resources,
- increasing teacher knowledge and skills in integrating CS and physical computing,
- increasing teacher awareness of CS integration and physical computing resources,
- increasing teacher interest and confidence in integrating CS,
- improving teacher capacity to meet instructional goals and state education standards,
- increasing student knowledge and skills in CS, and
- increasing student enjoyment, confidence, and interest in CS.

There are many opportunities to build on this project in Los Angeles County, other US counties, and in a variety of international contexts to reach more underserved students, expand to different instructional settings, and provide additional PD and instructional resources for using micro:bit.

## Acknowledgments

The University of Texas at Austin (UT) Texas Advanced Computing Center's (TACC) Evaluation Services team, including Drs. Lisa Garbrecht, Miriam Jacobson, and Ryan Torbey, offers acknowledgement and appreciation to several individuals for their time and input to support the development of this Micro:bit Educational Foundation (the Foundation) U.S. Pilot 2025 Evaluation Report.

To begin, we thank Google.org for making the pilot project and our evaluation possible through its funding.

We are grateful to the Foundation leadership and team members for their assistance in collaborating on the evaluation methods and supplying the necessary resources and support required for the evaluation. We are also grateful to the Los Angeles County Office of Education (LACOE) who provided input on our evaluation instruments and supported our data collection efforts.

Finally, we extend our sincere gratitude and appreciation to all the teachers and students who were willing to participate in our teacher surveys, teacher interviews, and/or student assessment. Their openness about their US Pilot training and implementation experiences, outcomes, challenges, and recommendations were essential in making this report authentic. The wealth of information gathered from their perspectives was instrumental to the overall evaluation process and report.