



CASE STUDY:

How St. Louis Public Schools implemented a comprehensive K-8 Coding & Robotics program across the district that transformed technology integration and student outcomes using Wonder Workshop's Make Wonder Platform and Dash robots.

Background

In 2021, using ESSER II funds, St. Louis Public Schools started a coding and robotics initiative by implementing Wonder Workshop's Dash robots and Make Wonder platform across 39 school sites, covering grades K-5.

In 2022, using ESSER III funds, they expanded their initiative to include additional Dash robots and Wonder Workshop accessories as well as purchasing a 3-year license to the Make Wonder Platform for a total of 42 schools.

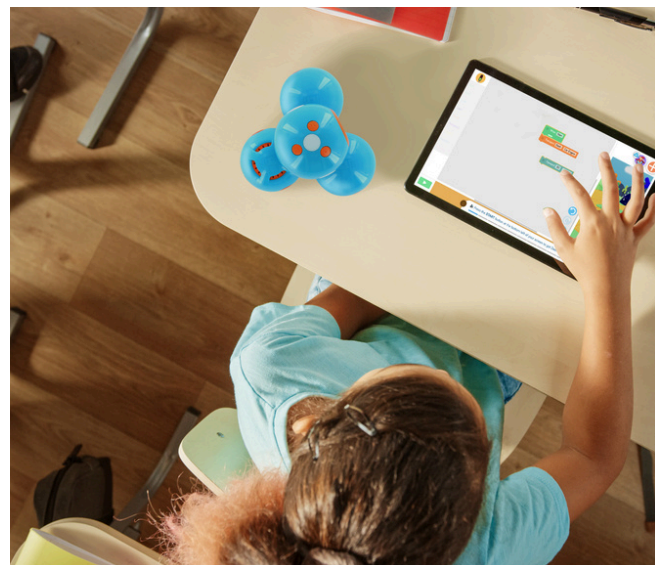
This Case Study examines how St. Louis Public schools sourced, funded, and implemented their comprehensive coding and robotics program for ALL students in regular classrooms and discusses the impact these programs have had on SLPS's ability to reach its stated goal of providing a quality education for all students and enabling them to realize their full intellectual potential.



Wonder Workshop can be counted on to deliver best-in-class solutions for districts looking to implement a system wide approach to technology integration that fosters transformational STEM teaching and learning.



Natasha Mitchell
Director of Virtual Learning & Gifted Education
St. Louis Public Schools





Phase I Implementation

In 2021, St. Louis Public Schools had a stated goal for teachers in grades PK-12 to “show increased frequency of high-leverage technology integration strategies as evidenced by lesson plans, coaching cycles, and classroom observation data.” The district decided that one way to achieve this goal would be to implement a comprehensive K-8 robotics program available to all students at 39 of their schools.

They approached Wonder Workshop for help with this initiative and used ESSER II funds to purchase 39 Dash Tech Center packs for use in 39 schools.

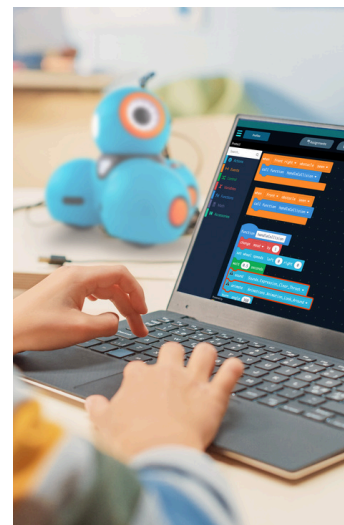
Each pack included

- 12 Dash robots
- 6 Gripper Building Kits
- 1 Learn to Code Curriculum Guide
- 1-Teacher/500-Student license to the Make Wonder platform

Before implementing this program, classroom observations in the Fall of 2021 indicated that over 75% of technology usage was at the entry or adoption level and that less than 3% of lessons were at the transformation level. The goal was to increase the percentage of teachers engaged in transformational-level usage of technology and for 100% of teachers to show an increase in high-level technology integration.

To measure the impact of the initiative on their stated goals, SLPS used technology integration classroom observation data as well as student achievement data collected via Wonder Workshop’s Make Wonder platform, which keeps a record of progress and performance as students move through coding puzzles and Coding Pathways, which are standards-aligned coding lessons with student-facing direct instruction as well as coding challenges for students to solve onscreen with a Virtual Dash robot.





Phase II Implementation

On the heels of the successful 2021-22 implementation, St. Louis Public Schools decided to expand its “Robotics Pathway for all K-8 Students” program using ESSER III funds for the 2022-23 school year. A key action step in their 2022-2023 plan was to identify at least one classroom in every K-8 building to implement coding and robotics computer science in their Tier 1 classroom instruction (whole group instruction for all students).

Additional action steps included:

- All scholars engage in a minimum of 50 minutes per week of Tier 1 computer science instruction that includes robotics and coding.
- By the end of SY 2022-2023, 100% of scholars in robotics pilot classrooms will successfully complete one full Coding Pathway inside of Make Wonder
- By the end of SY 2022-2023, 100% of scholars in Dash Robotics pilot classrooms will successfully complete at least one level of Wonder Workshop instruction (aligned to Code.org Computer Science Fundamental series.)
- By the end of the SY 2022-2023, 100% of 3rd – 5th grade scholars in Dash Robotics pilot classrooms will complete at least one coding pathway (Wonder Workshop.)

The overall goal was that by the end of the 2022-2023 school year, 90% of teachers in grades K-12 will show increased frequency of high-leverage technology integration strategies that demonstrate efficiency, productivity, and transformational learning as evidenced by the Technology Integration Matrix at a rate of increased trajectory of at least 20% each quarter.

How your dashboard is designed at the teacher level is fantastic. Very easy. I've looked at a lot of programs and yours is the easiest with everything in one place.



Natasha Mitchell
Director of Virtual Learning & Gifted Education
St. Louis Public Schools



Why Wonder Workshop?

Natasha Mitchell, Director of Virtual Learning & Gifted Education, explained it best when she stated that St. Louis Public Schools chose Wonder Workshop because of its ability to “create and sustain a culture where educators and learners are empowered to use technology in innovative ways to transform teaching and student learning.” Wonder Workshop achieves that outcome by supplying more than just hardware and software. In addition, Wonder Workshop provides ongoing professional development, both in-person and virtual, as well as continuous upgrades to the Make Wonder platform that provide teachers with new content and enhanced tools each year.

Results

- ▶ The virtual Dash robot allowed SLPS to expand the reach to every student, so that they could experience coding and robotics in a 1:1 environment
- ▶ The teacher management platform inside of Make Wonder allowed SLPS to observe the improvement of the students’ work and justify the financial investment
- ▶ The Coding Pathways curriculum inside of Make Wonder was a key differentiator. It was easy to implement for the novice to expert teacher
- ▶ The standards-aligned Math Activities and the extensive coding content actively engaged classroom teachers, helping to get them using it quickly
- ▶ By September of 2022, 90% of elementary teachers had attended a Wonder Workshop training with 95% of participant surveys reflecting 100% satisfaction with the sessions



INTERESTED IN IMPLEMENTING A CODING & ROBOTICS SOLUTION IN YOUR DISTRICT?

Email us at direct-sales@makewonder.com or visit makewonder.com/request-a-demo/