

Evidence-Based Learning for Libraries, Schools, and High-Traffic Learning Environments



Executive Summary

For more than 30 years, AWE Learning has partnered with libraries, schools, childcare centers, and community organizations to provide safe, research-backed educational technology for children ages 2–12. Purposefully designed for high-traffic learning environments, AWE workstations combine educational software with child-friendly hardware to support literacy, STEM exploration, creativity, digital literacy, and school readiness. Unlike general-purpose computers or tablets, AWE provides an ad-free, internet-free learning environment where children can confidently explore, discover, and build foundational skills through active participation. This brief highlights the educational research, measurable outcomes, and design principles that continue to guide AWE Learning's products and support our partners' learning goals.

Purposeful Educational Screen Time

Not all screen time is created equal. Educational research increasingly distinguishes passive media consumption from intentional digital learning experiences that require children to think, create, solve problems, and actively participate. Hirsh-Pasek et al. (2015) found that educational technology is most effective when it promotes active, engaged, meaningful, and socially interactive learning rather than passive consumption. Similarly, the American Academy of Pediatrics (2016) emphasizes that the quality of children's media experiences matters more than screen time alone, while the National Association for the Education of Young Children and the Fred Rogers Center (2012) recommend that technology be used intentionally and appropriately to support learning. AWE Learning workstations are specifically designed around these principles, encouraging literacy, executive functioning, creativity, problem-solving, and future readiness through purposeful interaction instead of passive entertainment.

Preparing Children for Real Digital Literacy

While many children are comfortable using touchscreens, digital literacy means more than just knowing how to swipe. Today's learners also need opportunities to develop the broader digital navigation skills required in classrooms and future careers. The OECD (2021) identifies digital literacy as an essential competency for lifelong learning, while the International Society for Technology in Education (ISTE, 2024) recognizes technology fluency as foundational for future-ready learners. Every AWE workstation combines touchscreen interaction with a child-sized mouse and keyboard, giving young learners authentic opportunities to practice clicking, typing, navigating menus, and developing hand-eye coordination. Research by Lin (2019) found that preschool children who relied less on tablets demonstrated stronger visual discrimination, visual memory, spatial relationships, fine motor precision, and manual dexterity, reinforcing the value of providing children with opportunities to use physical controls, such as a mouse and keyboard alongside touchscreen technology. AWE gives young children an opportunity to develop computer fluency by combining all three. Using an AWE Workstation, young learners build the foundational computer skills they'll need as they encounter keyboards, mice, desktops, and more complex digital environments at school and beyond.

Research-Backed Educational Content

Every educational title included on AWE Learning workstations is selected with intentional learning outcomes in mind. Every educational title included on AWE Learning workstations is intentionally selected for educational value, age appropriateness, and measurable learning outcomes, rather than entertainment alone. Efficacy studies conducted by AWE Learning content partners continue to demonstrate measurable learning gains. For example, Help Me 2 Learn reported reading improvements of up to 45%; Didactoons demonstrated mathematics gains exceeding 100%; and HOMER reported a 74% improvement in phonological awareness. These findings reflect our ongoing commitment to providing libraries and educators with meaningful, research-supported learning experiences.

Supporting Neurodiverse Learners

AWE Learning believes educational technology should be accessible and beneficial for every learner. CAST's Universal Design for Learning Guidelines (2024) emphasize providing multiple means of engagement, representation, and action to meet diverse learner needs. UNESCO (2023) and NAEYC (2012) likewise recognize the importance of inclusive, structured digital learning environments that support learners with diverse abilities and backgrounds. Further, research from den Brok and Sterkenburg (2014) shows that self-controlled technology can support people with autism and intellectual disabilities by promoting independent learning, skill development, and greater participation through structured opportunities for interaction and practice. Our workstations provide predictable navigation, structured activities, self-paced learning, and distraction-free experiences that help reduce cognitive overload while encouraging independent exploration. These design principles make AWE workstations particularly valuable for neurodivergent learners while also supporting multilingual learners and children developing skills at different rates. Because there are no advertisements, internet browsing, or unnecessary interruptions, children can remain focused on learning at their own comfort level. For children who benefit from predictable routines and clear expectations, AWE provides a consistent, structured, child-focused digital environment without the unexpected distractions of open web browsing, advertising, or unrelated content. This may be particularly valuable for neurodiverse learners who benefit from structured, predictable environments and the ability to engage with learning activities at their own pace.

Featured Learning Experience: RoboGarden Coding

Digital literacy extends beyond learning how to use technology; it includes understanding how technology works. RoboGarden Coding, a featured program on AWE workstations, introduces children to computational thinking through age-appropriate activities focused on sequencing, logic, problem-solving, and persistence. Bers (2022) argues that young children develop computational thinking most effectively through playful, developmentally appropriate experiences. Likewise, the National Academies of Sciences, Engineering, and Medicine (2020) identifies engineering literacy, problem-solving, and the engineering design process as foundational skills that support STEM learning and prepare students for future success. By introducing coding concepts within a safe, guided environment, young learners begin developing the analytical thinking and confidence that support future success in STEM education while continuing to strengthen reading and critical thinking skills across the curriculum.

Trusted by Libraries and Learning Communities

AWE Learning workstations are specifically designed for libraries, schools, childcare centers, hospitals, and other community learning spaces where safety, accessibility, and educational value are essential. Every workstation operates without internet access, advertisements, logins, or distracting content while offering multilingual learning options, allowing organizations to provide safe, inclusive, and independent educational experiences with minimal staff oversight. Today, nearly half of all U.S. public libraries trust AWE Learning to support early literacy and digital learning, with more than 10 million hours of educational use logged each year through AWE Learning workstations.

Research Continues to Guide Innovation

Educational research remains central to every decision AWE Learning makes. Feedback from librarians, educators, caregivers, and our partners, combined with decades of research on child development, literacy, STEM education, digital learning, and accessibility, continually informs our product development. As organizations including the OECD (2021), UNESCO (2023), and ISTE (2024) continue to emphasize digital literacy, equitable access, and future-ready learning as essential educational priorities, AWE Learning remains committed to creating safe, engaging, and purposeful learning experiences that prepare children not only for school, but for lifelong learning.

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