

TECHNOLOGY & LEARNING



THE CASE FRAMEWORK

Used by thousands of schools to improve the impact of technology on learning, the CASE framework informs the research gathering and analytical processes used to power the BrightBytes Technology & Learning module.



WHAT IS THE CASE FRAMEWORK?

CASE is a flexible, research-based framework founded on decades of research, practice and analysis. CASE has four domains which enable BrightBytes' statisticians and practitioners to prioritize and strategically target opportunities to positively impact learning.



Each domain contains between three and eight Success Indicators, areas that the research has shown are linked to student outcomes. For example, the Access Domain contains four Success Indicators that are reflections of the access that teachers, students, administrators and parents have to technology at home and at school. In total, there are 22 Success Indicators in the Clarity for Schools platform.

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The Pewaukee School District uses data-driven decision making on a daily basis, so having access to CASE data on our technology investments (both hardware and instruction/ PD) is critical."

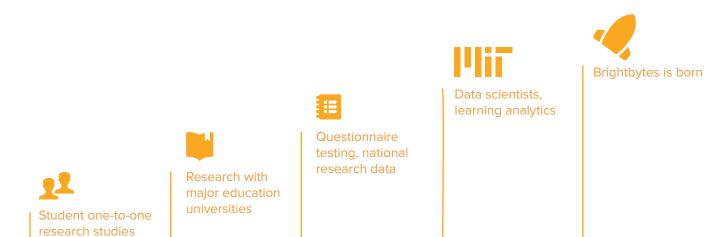
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CASE AT A GLANCE

- Research-based framework used to improve the impact of technology on student learning
- Comprehensive assessment of school's and district's current state of technology use
- Easy-to-understand overviews of strengths and gaps through visual aids, such as infographics, and benchmark comparisons
- Actionable recommendations for improvement, including quick wins and in-depth project plans



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CASE IN ACTION AT

SOUTH MIDDLE

- Context: Director of Instructional Technology sought to improve learning in South Middleton School District
- Challenge: CASE framework helped discover that students were using web 2.0 tools at home, but teachers were not comfortable using it personally or professionally
- Resolution: Used CASE to target professional development and created trainings for Google Apps & DropBox, bootcamps for proper use of Moodle and Websperation, and lessons on discussion forums and online chats
- Results: Teachers grew more comfortable incorporating new tools into classes. Students who had struggled in traditional classroom settings thrived in social media environments and learning improved

WHERE DOES CASE ANALYSIS ORIGINATE?

The CASE framework began with the study of the first student one-to-one laptop programs in 1999. It was developed to measure whether those technologies, and concurrent changes in pedagogy, were impacting student learning. In the following decades, CASE has grown through the work of researchers, statisticians and practitioners who are among the best in their field at studying and using technology for learning.

Each domain is supported by an extensive library of thousands of articles, from education to business and cognitive science sectors. Behavioral, demographic, psychographic, and student performance metrics are collected directly from schools and dozens of third-party sources through efficient methods that require very little time from the schools.

Selective information is then integrated into a customized "system dynamics" model developed by the BrightBytes analytics team. The system dynamics approach was first developed by MIT professor Jay Forrester in the mid-1950s and helps us understand how complex systems behave over time.

The CASE framework summarizes information into an overall technology maturity score. Scores are a function of the technology within each of the four CASE domains. A school's CASE score is calculated using advanced algorithms that have been developed by data scientists working with a team of educational researchers and school practitioners.