INCOMPLETE EDTECH IMPLEMENTATION

Understanding the Hidden Costs

Summary | May 2018

Filigree Consulting

Understanding the Hidden Costs of Incomplete EdTech Implementation

> ❝ The costs
> of ineffective
> implementation
> are high, but not
> always visible. ❞

Gene E. Hall's 2010 research on implementation challenges in schools called high-quality implementation "Technology's Achilles' Heel." Many schools do not implement at high levels of effectiveness due to factors such as incomplete planning and professional development.

The opportunity costs of ineffective implementation are not always visible to technology leaders. SMART Technologies initiated research to catalog these "hidden" costs with the purpose of providing guidance to technology leaders about the importance of ease-of-implementation in the technologies they choose.

About the Study

High-level searches were conducted to find studies that claimed results from well-implemented classroom technology, as these would provide an understanding of the opportunity costs of ineffective implementation.

Data Selection and Analysis

Multiple studies were found that claimed results in 3 areas with direct impact on school budgets. A set of model calculations was built for these 3 cost areas, and the model was tested and enhanced with input from education and financial subject matter experts. This structure was then used to drive additional searches for data on key variables in the calculations.

Data Sources

There are multiple organizations that track, measure and report on education, frequently sponsored by national or regional governments. While they differ in each geographic region studied, there were four broad sources of data used in the analysis.

1. Government agencies who report on or oversee education and provide access to education data.
2. Associations of educators, administrators and IT professionals that are focused on education issues and provide resources to the public.
3. Program-sponsoring organizations, both corporate and non-profit, that support programs in education and report on their results.
4. Academic research which is searchable in several forums that are generally international in nature.
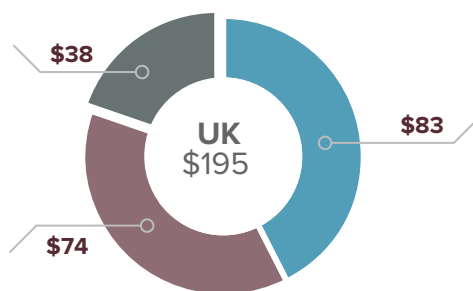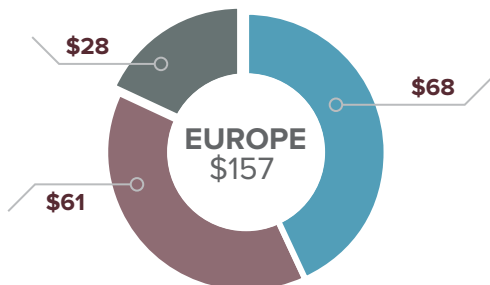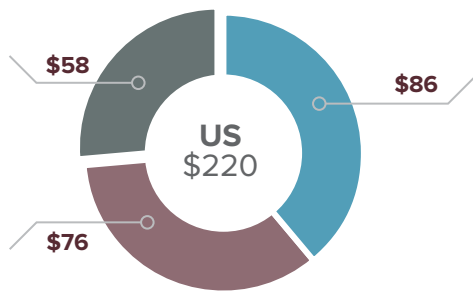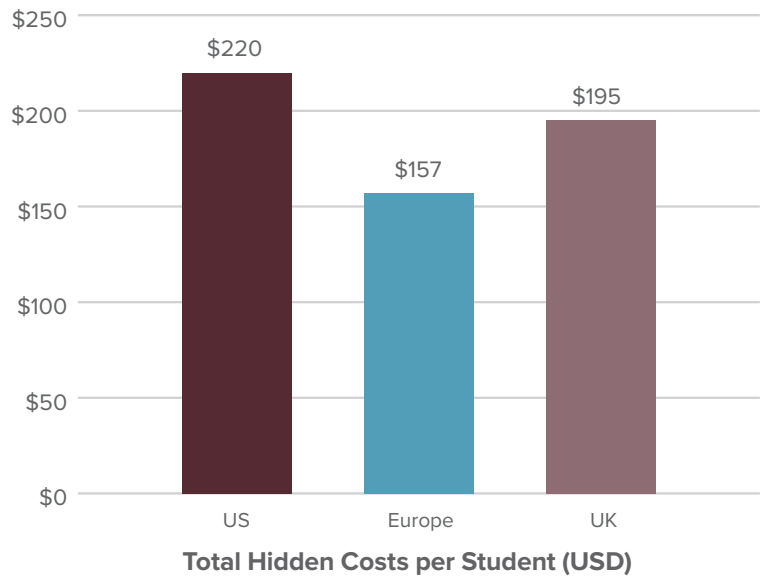
Beyond The Budget

It is vital to note that far more important than financial costs are the consequences to students when implementations fail. Lost opportunities to increase student engagement, deepen social and emotional learning, and improve teacher effectiveness, leave learners with their potential unfulfilled.

The Hidden Costs

According to the research, the total opportunity cost of ineffective education technology implementation is between $157 and $220 USD per student depending on the region.

For a school of 500 students, this would translate to between $78,500 and $110,000 in avoidable costs.

$250
$200
$150
$100
$50
$0

$220
$157
$195

US   Europe   UK

Total Hidden Costs per Student (USD)

$58
$86
US
$220
$76

$28
$68
EUROPE
$157
$61

$38
UK
$195
$83
$74

In each case, 40% or more of the hidden cost is due to added support costs from delayed implementation, and additional administrative costs from continued reliance on paper-based methods.

Added support costs
Includes increased support, professional development and implementation costs due to delayed adoption.

Administrative costs/overheads
Includes paperwork reduction, online versus paper assessments, copying costs, digital versus printed content and data collection.

Teacher attrition/turnover costs
Includes recruiting, selecting, inducting and training teachers to replace attrition.

Summary

If education technology is not fully adopted, it will cost more in the long run and — more importantly — it may result in a learning gap. When schools and districts consider EdTech options, these "hidden" costs should be factored into the price of any technology option that does not address implementation factors, such as ease of use and availability of comprehensive training resources.

Sources

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Formula for EdTech Success

Technology is a long-term investment. Based on our 2016 research study, *Teaching, Technology and Learning: Understanding the Interconnection*, technology drives learning outcomes when it is selected to complement defined teaching practices. When technology leaders choose software that supports the identified pedagogies, and then choose hardware that best delivers the experience of the software, they are more likely to achieve outstanding results. Successful technology projects plan their training and professional development around desired teaching practices as well as technology use.

TEACHING PRACTICES ▶ **SOFTWARE** ▶ **HARDWARE** = **SUCCESS & OUTCOMES**

TRAINING / PROFESSIONAL DEVELOPMENT
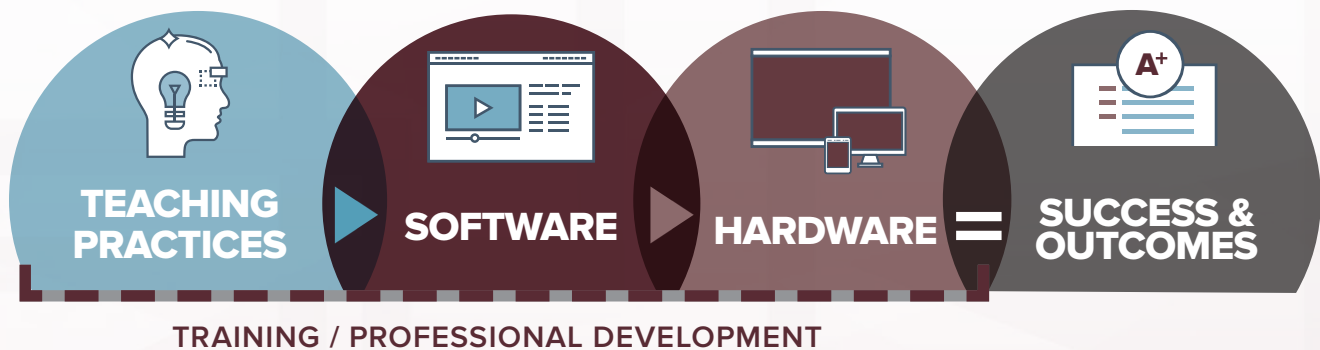
About SMART

SMART is a world leader in classroom technology. Over 30 years of innovation, we've provided interactive solutions to help every student and teacher discover and develop the greatness within them.

We are the inventor of the SMART Board and the developer of SMART Notebook, the world's most popular collaborative learning software, and part of the SMART Learning Suite.

Used in over 3 million classrooms, SMART solutions help students and teachers around the world achieve better learning outcomes.

To learn more, visit smarttech.com/education