# TEACHING, TECHNOLOGY AND LEARNING

Understanding the interconnection Preliminary Research Findings | December 2015



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# Understanding the Interconnection of Teaching, Technology and Learning

Recently there has been a focus on the impact technology has on student learning which has increased the urgency for both educational institutions and industry to work harder to find a more effective approach. SMART Technologies initiated research that aims to uncover the interconnections between success, technology and teaching/learning practices with the purpose of helping guide future decisions made in the education and technology sectors.

## **About the Survey**

#### Data Collected \_\_\_\_

#### Success Measures:

- Performance on standardized tests
- Social and emotional skill development
- Classroom environment: safety
- Visible learning practices
- Active participation
- Collaboration

#### Roles \_\_\_\_

More than 400 survey respondents



- Student devices
- Front of room technology
- Software

#### **Teaching/Learning Practices:**

- Student behaviors
- Teacher behaviors
- Active learning practices



Highest number of responses: United States, United Kingdom, Germany, Canada, Netherlands and Sweden. 26 other countries were also represented.



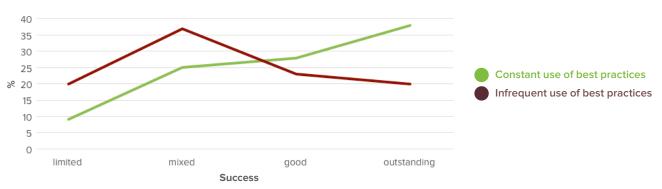
## **Preliminary Findings**

Results \_

1. According to the research, success is enhanced when classroom technology is paired with pedagogical best practices.

When looking at those that reported having the highest success, several interconnections of teaching/learning best practices and technology investments emerged. Teaching practices + Education software + Hardware = Success

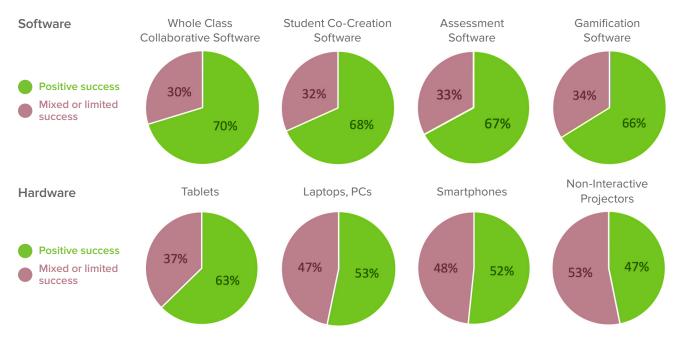
2. The use of teaching and learning best practices makes a difference in technology rich classrooms.



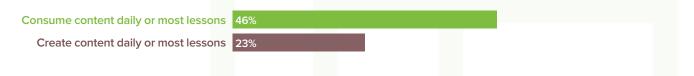
#### Type of Pedagogies + Technology Rich Classrooms vs Success

#### 3. Software is more closely related to success than hardware.

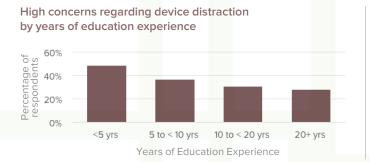
These charts represent the success respondents had when using different types of hardware or software daily or for most lessons.



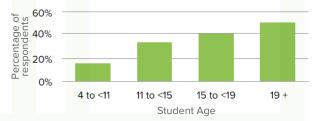
4. Student use of devices: they consume content more than they create content.



5. Concerns of technology being a distraction are most prevalent with less experienced educators and increases as students age.



Moderate/High concerns regarding device distraction by student age



6. Of all the teaching and learning practices reviewed, teachers need the most help with engaging students in rich, collaborative practices. The impact of those that do have success can be transformational.

## Success in the words of an educator

66 I have some students with learning difficulties and some with very difficult family situations. It was very difficult for them to participate in front of the class or even in small groups. One student didn't even interact with friends at recess time. When I started to use student collaboration software, I found that some of them were giving more contributions. I saw the boy with no friends talking to his classmates through the chat function in the software and little by little the group accepted him and invited him to play during recess. It was so encouraging!

### Summary

Accelerating the impact of technology on education requires a more effective approach. One that considers the various interconnections of technology hardware, software, high performing pedagogies and classroom contexts. Insight gathered from these high performing interconnections will not only help actualize the full potential of existing technologies, but will shape future decisions leading to a refined use of classroom technology across the globe.

This report only touches on the insights to be uncovered. The next scheduled release will be February 2016.

> Register at smarttech.com/TTLresearch to receive the full report.