verizon innovative learning

# VILS Cohort 4 2017 – 2021 Survey Findings

## Executive Summary

# Overview

- Background
- Purpose
- Study Questions
- Survey Findings
- Discussion

# Background

**The Verizon Innovative Learning Schools (VILS) program is an ambitious initiative aimed at supporting middle schools' efforts to integrate digital technologies to enhance teaching and learning.**

- Through a partnership with Digital Promise, Verizon supports using digital technologies to personalize teaching and learning to create self-guided learners.
- The program provides digital devices to all teachers and students in participating schools, as well as 24/7 internet access and professional learning from Digital Promise.

**Initiated in 2014, the initiative has funded 511 schools across 8 cohorts.**

**511**

# Study Purpose and Design

**The purpose of the evaluation is to examine the impact of VILS on teaching and learning in participating schools.**

**The evaluation uses a mixed-method approach.**

- Teacher and student surveys are administered at multiple points in time.
- Telephone interviews are administered at the end of each year.
- Analyses of administrative data such as student attendance, disciplinary action, and test performance.

# Study Questions – Teachers

**Teachers' use of technology**

- To what extent is participating in the program associated with changes in teachers' confidence in their ability to use technology? Tablets? Other types of technology? In their motivation to use technology?
- To what extent is participating in the program associated with changes in teachers' understanding of how technology can be incorporated into and support learning?

# Study Questions – Teachers (cont.)

**Integration of technology into instruction and instructional change**

- To what extent is participating in the program associated with changes in teachers' instructional practices with regards to the actual integration of technology into instruction, and in what specific ways?
- To what extent do teachers see technology as being a valuable part of instruction, and how does this change over time?
- To what extent is participating in the program associated with changes in other aspects of teachers' instructional practices?

# Study Questions – Students

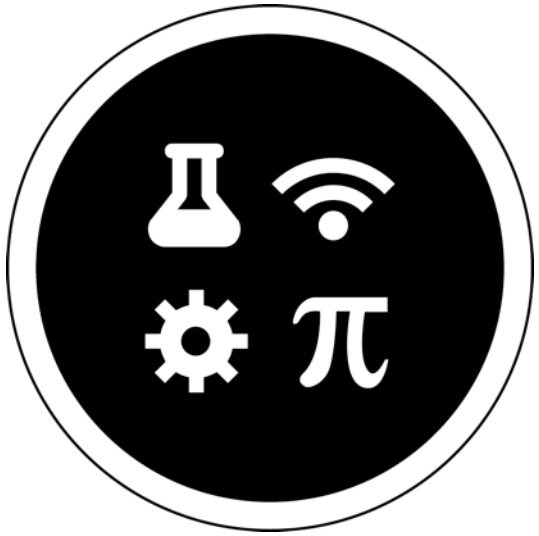
**Student engagement**

- To what extent is participating in the program associated with changes in student engagement in learning in the classroom? Outside of the classroom? To what extent do teachers and other staff see the VILS program as contributing to students' engagement in learning?

# Study Questions – Students (cont.)

**Academic learning**

- To what extent is participating in the program associated with changes in enjoying academic subjects, especially STEM subjects?
- To what extent is participating in the program associated with changes in academic performance? As perceived by students?
- To what extent do teachers and other staff see the VILS program as contributing to students' academic accomplishments?



# Study Questions – Students (cont.)

**Postsecondary education and careers**

- To what extent is participating in the program associated with changes in students' expectations for postsecondary enrollment?
- To what extent is participating in the program associated with changes in students' career aspirations, especially related to the STEM fields?

**This document presents cross-sectional teacher and student survey findings for Cohort 4. Students were not surveyed in Spring 2020.**

- Cohort 4 began participating in the VILS program during the 2017–18 academic year.
- The presurveys occurred in Fall 2017 and the most recent postsurveys in Spring 2021.
- Teacher data are from 18 schools in 6 districts after 4 years of participation in VILS.*
- Student data are from 20 schools in 7 districts after 4 years of participation in VILS.

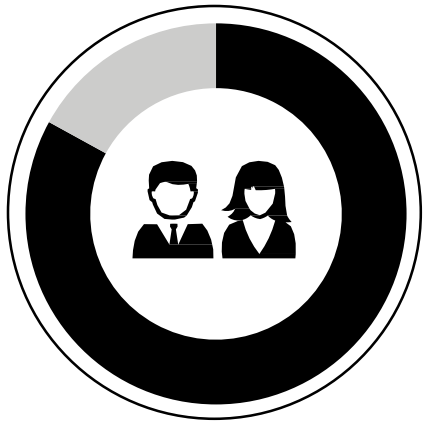
*Teachers from Propel school district (2 schools) did not participate in the Spring 2021 data collection.

**Overall Spring 2021 response rates were 83% for teachers and 82% for students.**

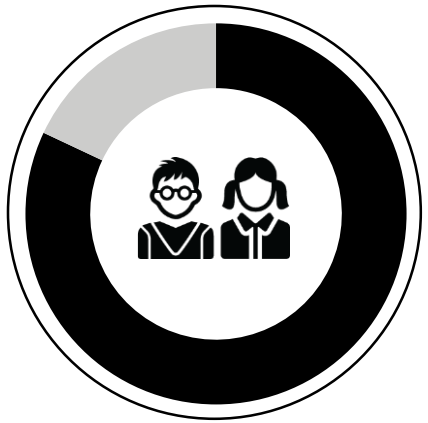
- Teacher response rates ranged from 19% to 100% across the schools.

- Student response rates ranged from 3% to 96% across schools.

83%



82%



**Changes are called out as being "meaningful" when (1) the difference is both statistically significant and the effect size is moderate ($p \leq .05$, Cohen's $D \geq 0.5$) *or* (2) there is a change of 10 percentage points or more.**

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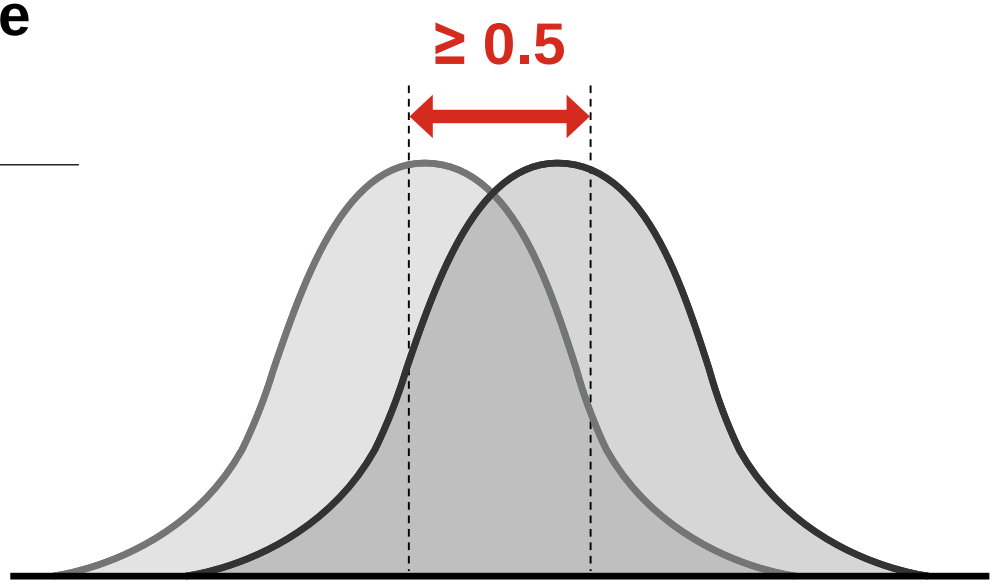
**Data show progress of schools participating in the program.**

No comparison data from nonparticipating schools are available. Without a comparison sample, any changes found cannot necessarily be attributed to the VILS program.



# COVID-19 Pandemic

**The onset of the COVID-19 pandemic in Spring 2020 forced schools across the country to shift to virtual learning models.**

- The consequences and effects of that shift are difficult to untangle.
- However, it is likely that the use of virtual learning has impacted these survey findings. In particular, the findings on the use of digital devices.
- For this reason, *caution must be taken in interpreting these findings,* as it is difficult to distinguish the effects of the COVID-19 pandemic from that of the VILS program at this point in time.

# Survey Findings

# Teachers' Use of Technology

**In Fall 2017, slightly less than half of the teachers rated themselves as skilled or expert in most aspects of using technology. By Spring 2021, this percentage increased significantly in every area examined, with over 70% of teachers rating themselves as skilled or expert in:**

- Using tablets and other digital technologies to prepare and deliver instruction;
- Using tablets and other digital technologies for formative assessment;
- Using tablets and other digital technologies to find and use digital information on the web; and
- Using collaborative software.

# Teachers' Use of Technology (cont.)

**Significant and meaningful increases in expertise in helping students use technology in their learning were also reported by teachers. Examples include:**

- Creating reports and presentations that integrate images, video, audio and/or music

| | |
|---|---|
| Fall 2017 | **41%** |
| Spring 2021 | **67%** |

- Collaborating with other students during or after class

| | |
|---|---|
| Fall 2017 | **42%** |
| Spring 2021 | **70%** |

- Finding and using credible information on the internet

| | |
|---|---|
| Fall 2017 | **56%** |
| Spring 2021 | **74%** |

# Teachers' Use of Technology (cont.)

**Teachers were extremely positive about the professional development (PD) they received, and praised the ability of Digital Promise to provide PD and answer questions.**

**When asked to compare pre-VILS PD with the PD received through the program, VILS was assessed to be significantly and meaningfully better in a few areas, including:**

- Operating digital devices;
- Enhancing teachers' ability to support critical thinking and problem-solving skills; and
- Enhancing teachers' ability to include video and audio in their instruction.

# Integration of Technology into Instruction and Instructional Change

**Students' reported ability to use technology remained steady, with about 50% rating themselves as skilled or expert over time.**

# Integration of Technology into Instruction and Instructional Change (cont.)

**Teachers' expectations of the effects of technology on specific aspects of their teaching were largely met. In Spring 2021, over 80% of teachers agreed that participation in the VILS program:**

- Enhanced their ability to differentiate instruction;
- Helped them realize goals set for individual students;
- Helped them explore new ways of teaching; and
- Helped them reach goals they had already set for their classroom teaching.

# Integration of Technology into Instruction and Instructional Change (cont.)

**Teachers' expectations for impacts on specific areas of instruction were largely met, with some indicators showing larger benefits than others.**

Spring 2021 data show:

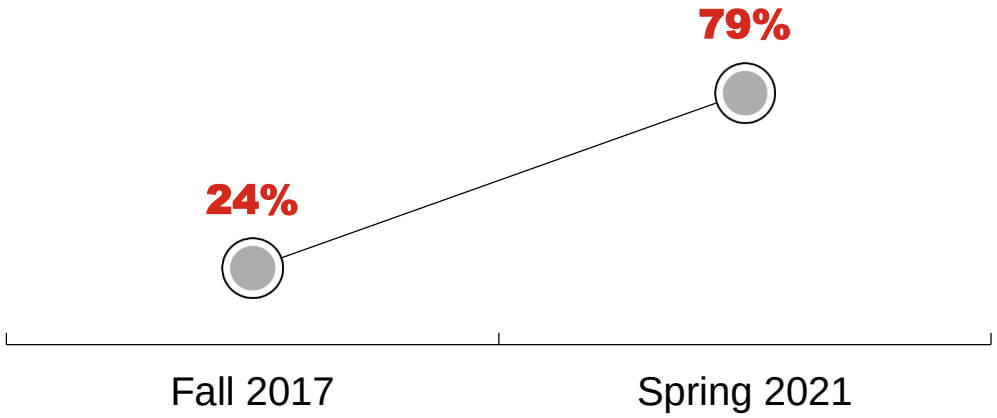
**88%** of teachers reported that the tablets enhanced the curriculum and connects to real-life situations.

**90%** of teachers reported that the tablets allows for more individualized instruction.

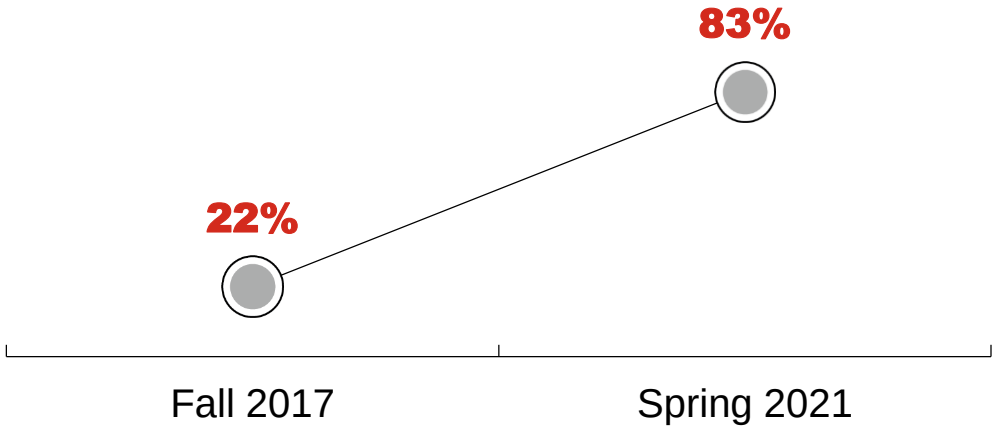
# Integration of Technology into Instruction and Instructional Change (cont.)

**Teachers have significantly increased their use of tablets, apps and other software tools. In Fall 2017:**

**24%** of teachers reported using a tablet to deliver instruction on at least a weekly basis; by Spring 2021 this percentage increased to **79%**.




**22%** of teachers reported using apps to deliver instruction on at least a weekly basis; by Spring 20201 this percentage increased to **83%**.



# Integration of Technology into Instruction and Instructional Change (cont.)

**Students also reported a significant and meaningful increase in the frequency of being asked to use a tablet or an app to complete an assignment.**

- Tablet

| | |
|---|---|
| Fall 2017 | **47%** |
| Spring 2021 | **81%** |

- App

| | |
|---|---|
| Fall 2017 | **53%** |
| Spring 2021 | **74%** |

# Integration of Technology into Instruction and Instructional Change (cont.)

**Significant and meaningful changes were found in teachers' reports of weekly use of self-paced activities such as asking students to:**

- Work at their own speed to complete an assignment

| | |
|---|---|
| Fall 2017 | **65%** |
| Spring 2021 | **94%** |

- Select their own way of completing an assignment

| | |
|---|---|
| Fall 2017 | **60%** |
| Spring 2021 | **83%** |

- Reflect on and critique their own work

| | |
|---|---|
| Fall 2017 | **59%** |
| Spring 2021 | **75%** |

# Integration of Technology into Instruction and Instructional Change (cont.)

**Homework assignments have increased in frequency. There were significant and meaningful increases in the frequency of asking students to do the following, at least weekly:**

- Learn new information about a topic that will be covered in class

| | |
|---|---|
| Fall 2017 | **23%** |
| Spring 2021 | **81%** |

- Review material to prepare for a quiz or test

| | |
|---|---|
| Fall 2017 | **25%** |
| Spring 2021 | **78%** |

- Collaborate with other students

| | |
|---|---|
| Fall 2017 | **19%** |
| Spring 2021 | **67%** |

# Student Engagement and Learning Behaviors

**Teachers' expectations for impacts of tablets across various aspects of student engagement were largely met, with some indicators showing larger benefits than others.**

Spring 2021 data show:

**66%** of teachers reported that the tablets improved student attendance.

**81%** of teachers reported that the tablets helps develop critical and creative thinking skills.

# Student Engagement and Learning Behaviors (cont.)

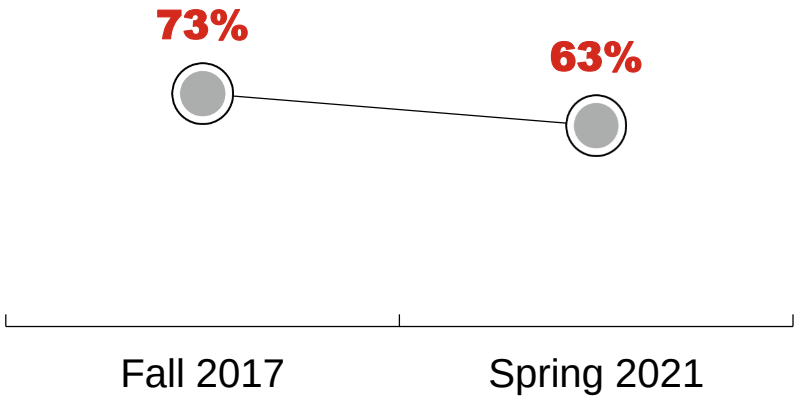
**Students, however, report little change from 2017 to 2021 in the frequency of learning behaviors typically associated with more individualized instruction, including**

- Reviewing or revising an assignment to make it better before it gets graded at least weekly;
- Selecting or identifying their own way of solving a problem or completing an assignment at least weekly; and
- Working at their own speed to solve a problem or complete an assignment at least weekly in a specific class.

**Students also report a significant decrease in the extent to which they come to a specific class with their homework completed at least weekly.**

# Student Engagement and Learning Behaviors (cont.)

**No significant impacts were found on the extent to which students found core subjects to be usually or always interesting, except for technology and engineering which decreased from 73% in Fall 2017 to 63% in Spring 2021.**



# Discussion

# Cohort 4 Teachers Report Positive Impacts on Their Teaching and Students

- Teachers are making greater use of digital technologies for instruction and report positive impacts on their skills and expertise.
- Teachers feel that their expectations for positive impacts on student engagement and academic learning are being confirmed.

# Students Report Few Changes in Their Learning Behaviors and Interest in Subjects

**There seem to be some differences between teachers and students in their perceptions of the impact of digital technologies on student learning and learning behaviors, with teachers being more positive.**