

A Look at State of Evidence in K-12 EdTech





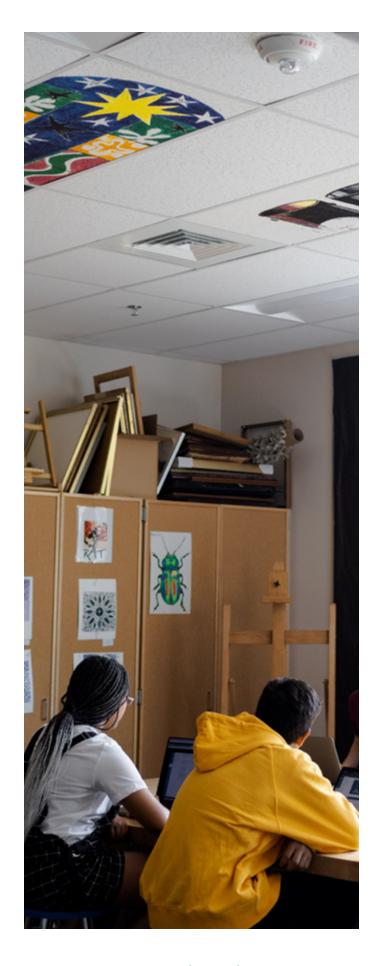
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# In Edtech, Evidence Matters

It's undeniable that technology is shaping the future of education—redefining teaching and learning practices, fostering collaboration and innovation, enhancing accessibility, facilitating immersive learning experiences, and preparing students for success in a rapidly evolving world. With this digital transformation came the proliferation of edtech; K-12 school districts accessed an average of 2,591 tools during the 2022-23 school year.

With so many digital tools used by teachers and students, it's more important than ever to understand which are compliant with regulations and policies, which are secure and safe, which adhere to industry standards, which are eligible to be purchased using federal funds, and most importantly, which have a positive impact on outcomes. And the need for this is being recognized; the most recent **2024 National EdTech Plan** calls out the importance of careful vetting and implementation to close digital and learning divides.





#### So, where do district leaders start?

The answer is evidence. Utilizing evidence-based edtech tools is absolutely critical to building digital ecosystems that support and enhance teaching and learning rather than distracting from it. And 'evidence-based' doesn't just mean that there needs to be rigorous research to back up a tool. In the context of edtech, evidence refers to many data points, including data privacy and security certifications, interoperability credentials, standards alignment, accessibility and of course, rigorous research. There is no single, standardized definition of what constitutes 'good' evidence—and there shouldn't be, because every education environment is unique and dynamic. Instead, leaders need to consider their specific context and goals and evaluate tools based on the evidence data points relevant to their needs.

To help education leaders wrap their heads around what evidence is available to them when making informed edtech decisions, we looked at some of the most accessed solutions in K-12 classrooms and how they stack up when it comes to evidence. For the second year, we've aggregated data from some of the industry's most trusted third-party organizations that provide publicly accessible evidence across key domains—including privacy, interoperability, research, accessibility, and effectiveness—to understand the state of evidence in edtech. Our findings? While progress has been made, edtech needs to be more evidence-driven.

With finite time and funding, it is incumbent upon education systems to verify the effectiveness of technological tools before purchase and adoption, and during classroom implementation. Inquiring about digital resources' evidence base can serve as a first line of defense for worthwhile use of educator and student time.

-2024 National Educational Technology Plan



# Leading the Industry in **Evidence**

Some of K-12's most trusted organizations are pioneering the evidence movement. Here are the organizations we turned to to uncover evidence related to some of the most widely used student and teacher-focused edtech tools.





#### 1 EdTech

1 EdTech is a nonprofit organization dedicated to advancing technology that can scale and improve education. 1EdTech promotes transparency in edtech through established standards and certification programs—including **One Roster**, Common Cartridge, and LTI Certification. The 1EdTech **TrustED Apps Certification** helps guide and support organizations and product providers in the collection, sharing, and securing of student data.



#### **Common Sense Education Privacy Program**

education This program offers ratings based on edtech product privacy practices - it is a coordinated effort to protect child and student privacy, and build in safety and security from the start.



#### **Digital Promise**

Promise The mission of Digital Promise is to expand opportunity for each learner. Through product certifications like the **Digital Promise Learner Variability Certification** and the **Research-based Design Certification**, Digital Promise aims to foster an edtech industry that provides equitable learning opportunities for all.



#### Future of Privacy Forum's Student Privacy Pledge 2020

The Future of Privacy Forum serves as a catalyst for privacy leadership and scholarship, advancing principled data practices in support of emerging technologies.



#### **iKeepSafe**

The Internet Keep Safe Coalition (iKeepSafe) certifies edtech solutions as compliant with state and federal requirements including FERPA and COPPA— for handling protected personal information.



ISTE empowers educators by promoting innovative pedagogy and technology use through professional learning and ensuring the effectiveness of digital tools. The ISTE Seal recognizes solutions are aligned to the ISTE Standards and meet quality, usability, accessibility and inclusivity metrics.



#### **Project Unicorn**

Project Unicorn is a national educational advocacy initiative dedicated to the secure, controlled interchange of data. Through the Project Unicorn Pledge and the Interoperability Certification, the organization is dedicated to promoting the importance of data interoperability in education



#### **LearnPlatform by Instructure EdTech Effectiveness System**

LearnPlatform surfaces evidence-based insights from a variety of trusted third parties in a central location. In addition to providing access to evidence, the platform offers tools for streamlining the processes for purchasing, vetting and managing edtech.



# Analyzing Edtech's **Most-Accessed Solutions**

As part of this report, we examined the published evidence related to 100 learner-focused and educator-focused solutions designed specifically for education and most frequently accessed by students and educators between September and November of 2023, as tracked by LearnPlatform by Instructure.

#### Learner-Focused Solutions

Tools in this category are generally used by individual learners—with individual self-determination—during various learning processes both in and out of the classroom. Activities of study, creation, research, games all fall into this this category.

#### **Educator-Focused Solutions**

These products are primarily used by educators to support the teaching and learning process, including activities and engagement for multiple learners with some direction or alignment. Shared tools, assessment, planning and operational tasks in/around/between educators and students are in this category.

ABCya! Learner-Focused, Sites & Resources
ALEKS Learner-Focused, Courseware Platforms Amplify Learner-Focused, Courseware Platforms

Be Internet Awesome Learner-Focused, Sites & Resources Blooket Educator-Focused, Classroom Engagement & Instruction

**Brainly** Learner-Focused, Study Tools

**BrainPop** Learner-Focused, Supplemental Platforms **Canva** Learner-Focused, Creation & Authoring Tools

Canvas LMS Educator-Focused, Classroom Engagement & Instruction

**Chegg** Learner-Focused, Study Tools

Chrome Music Lab Learner-Focused, Creation & Authoring Tools CK-12 Learner-Focused, Courseware Platforms

Code.org Learner-Focused, Supplemental Platforms College Board Learner-Focused, Study Tools CommonLit Learner-Focused, Supplemental Platforms ConnectED Learner-Focused, Supplemental Platforms CoolMathGames Learner-Focused, Sites & Resources

Course Hero Learner-Focused, Study Tools

**DeltaMath** Learner-Focused, Courseware Platforms **Desmos** Learner-Focused, Study Tools

Discovery Education Learner-Focused, Courseware Platforms
Dreambox Learning Learner-Focused, Courseware Platforms
Ducksters Learner-Focused, Sites & Resources

**Duolingo** Learner-Focused, Supplemental Platform

EdPuzzle Educator-Focused, Classroom Engagement & Instruction
Encyclopedia Britannica Learner-Focused, Reference & Digital Collections

**Epic!** Learner-Focused, Supplemental Platforms

**ExploreLearning** Learner-Focused, Sites & Resources

FastBridge Educator-Focused, Classroom Engagement & Instruction

Flip Educator-Focused, Classroom Engagement & Instruction Flocabulary Learner-Focused, Supplemental Platforms

Freckle by Renaissance Learner-Focused, Courseware Platforms

Genius Learner-Focused, Sites & Resources
Gimkit Educator-Focused, Classroom Engagement & Instruction

Google Classroom Educator-Focused, Classroom Engagement & Instruction

Grammarly Learner-Focused, Study Tools
History.com Learner-Focused, Sites & Resources

Houghton Mifflin Harcourt Learner-Focused, Courseware Platforms

i-Ready Learner-Focused, Courseware Platforms

Illuminate Education Educator-Focused, Classroom Engagement & Instruction

Imagine Learning Learner-Focused, Courseware Platforms

 $\textbf{IXL} \ \text{Learning Learner-Focused, Courseware Platforms}$ Kahoot! Educator-Focused, Classroom Engagement & Instruction

Kami Educator-Focused, Classroom Engagement & Instruction

Khan Academy Learner-Focused, Supplemental Platforms

Kiddle Learner-Focused, Reference & Digital Collections

KidsPost Learner-Focused, Reference & Digital Collections Learning A-Z Learner-Focused, Courseware Platforms

Legends of Learning Educator-Focused, Classroom Engagement & Instruction

Lexia Learner-Focused, Courseware Platforms

MasteryConnect Educator-Focused, Classroom Engagement & Instruction

Math is Fun Learner-Focused, Sites & Resources Math Playground Learner-Focused, Sites & Resources

Mathway Learner-Focused, Study Tools
McGraw Hill Learner-Focused, Courseware Platforms
MIT App Inventor Learner-Focused, Creation & Authoring Tools National Geographic Kids Learner-Focused, Sites & Resources Naviance Learner-Focused, Career Planning & Job Search

Nearpod Educator-Focused, Classroom Engagement & Instruction

Newsela Learner-Focused, Supplemental Platforms Nitro Type Learner-Focused, Supplemental Platforms NoRedink Learner-Focused, Supplemental Platforms

Padlet Learner-Focused, Creation & Authoring Tools
Panorama Education Educator-Focused, Classroom Response & Assessment

PBS Learner-Focused, Sites & Resources

**PearDeck** Educator-Focused, Classroom Engagement & Instruction **PebbleGo** Learner-Focused, Supplemental Platforms PhET Interactive Learner-Focused, Study Tools

Poki Learner-Focused, Sites & Resources
Prezi Educator-Focused, Classroom Engagement & Instruction
Prodigy Learner-Focused, Supplemental Platforms Purdue Writing Lab Learner-Focused, Sites & Resources Quick, Draw! Learner-Focused, Sites & Resources

Quizizz Educator-Focused, Classroom Engagement & Instruction

Quizlet Learner-Focused, Study Tools
ReadWorks Learner-Focused, Courseware Platforms

Renaissance: myON Reader Learner-Focused, Courseware Platforms

Roblox Learner-Focused, Creation & Authoring Tools
Savvas Educator-Focused, Classroom Engagement & Instruction

Scholastic Learner-Focused, Learning Materials & Supplies

Schoology Learner-Focused, Courseware Platforms Scratch Learner-Focused, Creation & Authoring Tools

Screencastify Educator-Focused, Classroom Engagement & Instruction SeeSaw Educator-Focused, Classroom Engagement & Instruction

Slidesgo Learner-Focused, Creation & Authoring Tools

SparkNotes Learner-Focused, Study Tools
SplashLearn Learner-Focused, Supplemental Platforms

ST Math Learner-Focused, Courseware Platforms

**Starfall Education** Learner-Focused, Sites & Resources **Study.com** Learner-Focused, Study Tools

StudySync Learner-Focused, Study Tools

SurveyMonkey Classroom Response & Assessment
TeachersPayTeachers Marketplace Educator-Focused, Classroom Engagement & Instruction

ThoughtCo Learner-Focused, Reference & Digital Collections

Typing.Com Learner-Focused, Supplemental Platforms TypingClub Learner-Focused, Supplemental Platforms

WeVideo Education Classroom Engagement & Instruction

**WordWall** Classroom Engagement & Instruction **XtraMath** Learner-Focused, Courseware Platforms

Zearn Learner-Focused, Supplemental Platforms



# Data Privacy Evidence

As technology continues to transform teaching and learning, ensuring the security and privacy of student data has become a consistent area of focus and concern for K-12 organizations. In addition to complying with local policies and state and federal legislation, district leaders must build a comprehensive data privacy plan that protects students and educators from malicious uses of their personal information and protects their districts from costly, disruptive, and reputation-damaging data breaches.

We considered four well-known, independent sources of privacy evidence to understand the lay of the land for these 100 solutions.

#### Student Privacy Pledge



48% have signed the Student Privacy Pledge 2020

That's an increase of **7**% compared to the data reported in our **2023 Evidence Report**.

Across the industry, 439 edtech providers have signed the Student Privacy Pledge, which is an increase of almost 200 providers in the past year, according to the 2023 Evidence Report. Reference: <a href="studentprivacypledge.org">studentprivacypledge.org</a>

### iKeepSafe Certifications

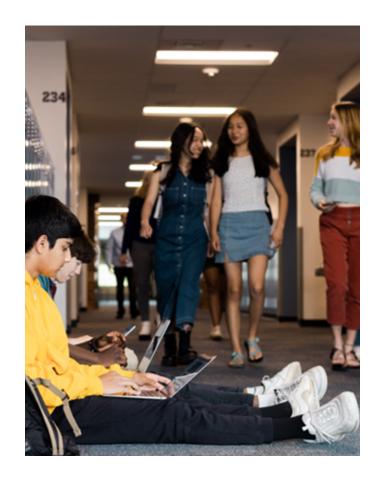


9% are iKeepSafe FERPA Certified



8% are iKeepSale Coppa Safe Harbor Products

The iKeepSafe FERPA Certification demonstrates compliance with the federal mandates as well as iKeepSafe's rigorous guidelines. The iKeepSafe COPPA Safe Harbor Certification program ensures that practices surrounding collection, use, maintenance and disclosure of personal information from children under the age of 13 are consistent with principles and requirements of the Children's Online Privacy Protection Act (COPPA). In total across all edtech providers, 87 solutions have received the iKeepSafe FERPA certification and 73 solutions have received the iKeepSafe COPPA certification. Reference: ikeepsafe.org





# Common Sense Education Privacy Ratings







received a Pass Rating

received a Warning

have not been reviewed

Common Sense has reviewed a total of 5,134 apps for privacy. To earn a Common Sense Education Pass Rating, a product's policies must say:

- No selling data
- No third-party marketing
- No targeted advertisements
- No third-party tracking
- No tracking across apps
- No profiling for commercial purposes

Reference: commonsense.org

# 1EdTech TrustEd Apps Certified 11% are 1EdTech TrustEd Apps Certified

In total, **5,321 solutions** have received the 1EdTech TrustEd

Apps certification. Reference: 1edtech.org

# What about popular tools and sites that aren't edtech?

Google, YouTube, social media networks, online news outlets, and more recently, ChatGPT, are all part of daily life for most people today-including educators and students. These sites and tools are frequently used in education settings, even though, unlike the designated 'edtech' tools we've examined in this report, they weren't created specifically for that purpose. These pervasive tools carry no shortage of their own security and privacy risks, but the reality is that given their hugely generalized purpose and user base, it's not reasonable to expect they'll comply with industry standards or credentials. While these tools shouldn't be avoided entirely in education because they are a critical part of life beyond the classroom, administrators need to be aware of specific risks and policies associated with these tools and consider how to use them impactfully.

# Recommendations for District Leaders

- Ensure the edtech solutions used within your organization are compliant with local, state and federal privacy requirements and regulations.
- Implement student data privacy and cybersecurity checks into your edtech evaluation processes.
- Educate all stakeholders in your organization—including teachers, students, and families— on data safety and privacy.

# Interoperability Evidence

Interoperability is the ability of different systems or applications to seamlessly and securely exchange data and work together effectively. Integrated technology systems save teachers and students time and provide contextualized student information that is otherwise nearly impossible to access from disparate systems. With interoperable edtech tools, educators can access comprehensive student data, streamline workflows, create student-centered learning experiences, and make informed instructional decisions more effectively.

We considered five indicators of interoperability put forth by two independent organizations, Project Unicorn and 1Ed-Tech and Project Unicorn.



# 1Edtech



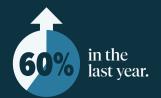




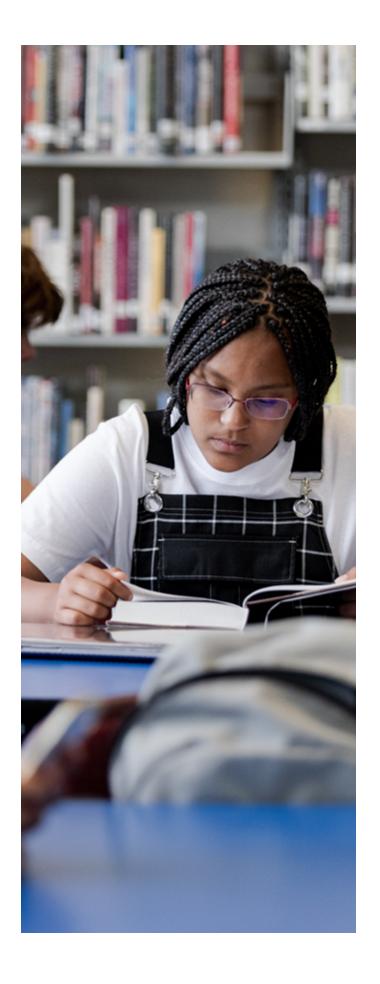
are LTI Advantage Certified

1Edtech has deemed a total of **144 solutions** as One Roster certified, which include **63** that are newly certified in the past year. **5,033 total** solutions are Common Cartridge certified and **304** have received LTI Advantage certification, which represents a nearly **60% increase in the last year**.

Reference: 1edtech.org







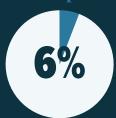
## Project Unicorn

Interoperability Pledge



have signed Project Unicorn's Interoperability Pledge

**Interoperability Certification** 



have earned Project Unicorn's Interoperability Certification

Overall, **295** edtech providers have signed Project Unicorn's Interoperability Pledge, with **165** of those providers signing in the past year, and **44** solutions have received Interoperability certification, up from **25** solutions last year. Reference: projectunicorn.org

# Recommendations for District Leaders

- Advocate for and adopt widely accepted standardized data formats and protocols to ensure seamless interoperability among various educational technology tools
- Include stakeholders from across the organization in interoperability efforts. Focus conversations on the impact interoperability can have on teachers and students.
- Encourage collaborative partnerships between edtech vendors and educational stakeholders to foster interoperability initiatives.

# Quality Content Evidence

Educators look for high-quality, standards-aligned, and accessible content to put in front of students. Administrators and educators can rely on trusted resources to pull from to build lesson plans that align to their standards, supporting a guaranteed and viable curriculum while saving teachers' time. Quality content also ensures that students' different learning needs and styles are accounted for, and provides diverse online experiences that are relevant and encourage active student engagement.

For indicators of these criteria, we looked to Digital Promise and ISTE.





# Digital Promise Learner Variability Certification



have earned the Digital Promise
Learner Variability certification.

In total, 36 solutions have earned the Digital Promise Learner Variability certification. Reference: digitalpromise.org

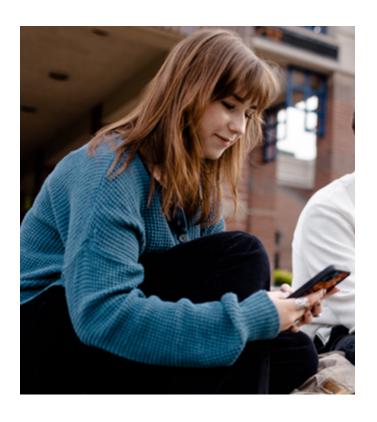
#### Recommendations for District Leaders

- Prioritize solutions that meet quality, usability, accessibility and inclusivity metrics.
- Seek out solutions that support equitable learning opportunities for all students
- Curate content that is tightly aligned with curriculum standards and instructional objectives and pass rigorous review processes.



# Research and ESSA Evidence

Thoughtfully designed research is critical to understanding what edtech solutions work for which students and in what contexts—and as part of the Every Student Succeeds Act (ESSA), it's required of all edtech tools. The ESSA framework provides an approachable model educators can use to find research-based edtech, from brand-new and innovative solutions with compelling implementation approaches to established tools with empirical research in various authentic education settings. We analyzed the ESSA-aligned research behind the 100 most-accessed solutions.



## Digital Promise Research-Based Certification



have earned the Digital Promise Research-based certification

In total, **100 solutions** have earned the Research-based certification. Reference: <u>digitalpromise.org</u>

# Available ESSA-Aligned Research





36% have published research that is aligned to ESSA, with 26% publishing more than one study.

#### Highest ESSA Level Received

ESSA Level IV: 9

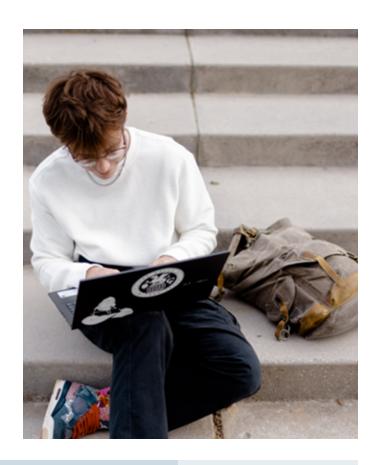
ESSA Level III: 18

ESSA Level II: 4

ESSA Level I: 5

## Understanding ESSA Evidence

The Every Student Succeeds Act (ESSA) outlines 4 levels of evidence designed to ensure edtech effectiveness and ongoing innovation.



#### ESSA Level IV: Demonstrates Rationale

- Research-based logic model for why this product should work
- Blueprint for implementation with fidelity, including appropriate usage metrics to track
- Represents a rationale

   not empirical researchin an authentic
   education setting
- Limitations on federal funding eligibility

# ESSA Level III: Promising Evidence

- Correlational research study showing positive relationship between tool use and student outcomes
- Study did not include comparison groups, random assignment, or baseline equivalence
- Most meaningful for districts with similar context (student demographics, etc.)
- Establishes eligibility for all types of federal funding

#### ESSA Level II: ModerateEvidence

- Quasi-experimental research study showing students who used the product outperformed students who did not
- Includes demographically similar comparison group, but groups were not randomly assigned
- District context should be considered when interpreting results
- Establishes eligibility for all types of federal funding

#### ESSA Level I: Strong Evidence

- Experimental research study proving students who used the product outperformed students who did not
- Utilizes randomized comparison group for strong, highly generalizable evidence
- Establishes eligibility for all types of federal funding



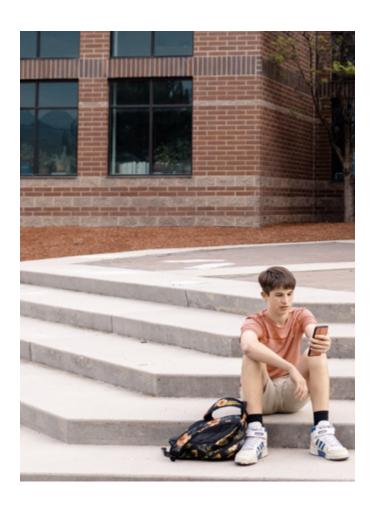
## LearnPlatform's Contribution to ESSA Evidence

# 350+ ESSA studies were conducted or validated by the LearnPlatform Research Team

Reference: Learn Platform by Instructure

while the ESSA framework provides a rigorous approach for understanding the quality of education research, we recognize the inherent challenges of studies being done years prior, in different contexts, and for academic vs. educational purposes. Given that educators have different levels of research expertise, The LearnPlatform Research Team has vetted and translated available research into easily accessible ESSA evidence badges. Learn Platform ESSA Evidence Badges can be earned by any education solution and equip educators to easily understand a solution's existing evidence base.





# Recommendations for District Leaders

- As you evolve and refine your edtech ecosystem, prioritize research and look for products that have one or more ESSAaligned studies conducted or vetted by a third-party, What Works Clearinghouse certified research group. Don't forget to consider the recency and context of each study.
- Continuously assess the effectiveness and impact of your edtech by collecting user feedback and leveraging data to measure against progress towards intended outcomes.
- Partner with edtech providers that are committed to evidence-based solutions, and ask vendors you are considering about their ongoing commitment to building an evidence base.

# In closing

As district challenges, demographics, and initiatives evolve, organizations must continuously evaluate and refine their edtech ecosystems by ensuring that their technology decisions are grounded in evidence, promote safety and equity, prioritize privacy, and align to improved outcomes. At the same time, edtech providers must build a foundation of evidence and continue to invest in evidence-based solutions as their products and the learning landscape evolves. School districts and providers should work together to take an evidence-informed approach to developing, deploying, and evaluating the impact of education technology solutions.



# Powering the World's Smartest Classrooms.

Instructure is an education technology company dedicated to helping everyone learn together. We amplify the power of teaching and elevate the learning process, leading to improved student outcomes. We strive to make learning more personal and student success more equitable by delivering solutions to support, enrich, and connect every aspect of teaching and learning. Today, Instructure supports more than 30 million educators and learners at more than 6,000 organizations around the world.

Learn more at instructure.com/k-12.

If you'd like to receive research updates or have any questions about this report, please contact us at evidence@instructure.com.