



Discovery Education's Impact on Student Achievement

What We Do: K-12 Digital Learning Platform

Our award-winning K-12 platform, Discovery Education *Experience*, empowers educators with a vast collection of multimodal resources vetted and curated to support differentiated, scaffolded learning in any environment. Teachers can create and manage lessons, personalize assignments, develop and deliver formative assessments, track student progress in real time, access professional learning, and collaborate with educators globally. Students can discover exciting, age-appropriate content to feed their curiosity and show their knowledge and skills of challenging concepts by engaging with our assignments.

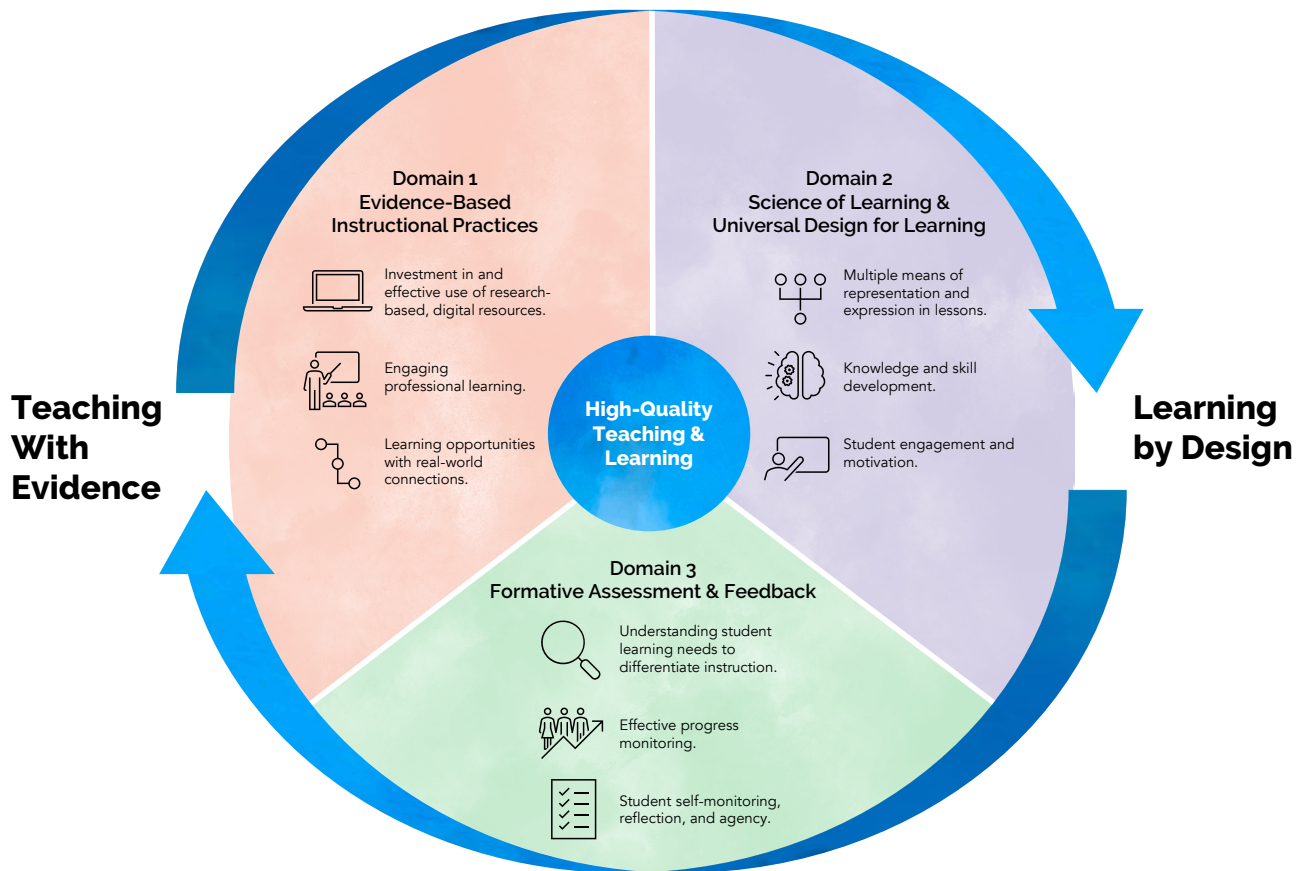
Teaching with Evidence, Learning By Design

Experience is built upon a theory of action about how best to enhance the K-12 teaching and learning experience. A theory of action is a collection of statements that hypothesize how intentional actions will result in change, based on insights from existing research. Collectively, our theory of action statements describe the philosophical foundation underpinning our approach to teaching and learning. At the core of our change model are three essential components, or domains, of high-quality teaching and learning in a K-12 environment:

- Domain 1: Evidence-Based Instructional Practices
- Domain 2: Science of Learning & Universal Design for Learning
- Domain 3: Formative Assessment & Feedback

Based on this [theory of action](#), Discovery Education produced a [logic model](#) that serves as a conceptual map for *Experience*.

Discovery Education Theory of Action



Evidence-Based Interventions to Accelerate Learning

At DE, we're committed to providing research-based products and services and verifying their efficacy across educational settings to support deep and sustained learning. DE has a dedicated internal research team and engages independent research organizations to cull insights from qualitative and quantitative data that are used to evaluate program implementation and impact, and inform program enhancement decisions. Independent studies have revealed promising results about the impact of Discovery Education partnerships, products, and services on teaching and learning outcomes.

Findings from multiple studies tell a consistent and promising story of how use of Discovery Education's curricular resources is related to outcomes that matter across the country for students overall, and especially for racial/ethnic minorities and students impacted by poverty, disabilities, and limited English proficiency. The research studies show that students in elementary, middle, and high school with regular access to Discovery Education resources have higher attendance rates and were found to outpace their peers on state assessments.

Discovery Education access is, in fact, making a significant difference in teaching and learning. Initial findings were based on three separate studies,

conducted in districts in Texas, California, and Tennessee and supported by the independent findings of a published university study. A subsequent study was conducted for the entire state of Kentucky.

- In a Texas study, **73%** of high-use students met benchmarks, compared to 30% of low-use students. Significant results for African American and Hispanic students and students impacted by poverty.
- In a Tennessee study, **66%** of high-use students met reading benchmarks and **70%** met math benchmarks, compared to 50% of low-use students meeting benchmark for both reading and math. Significant results for Hispanic and African American students.
- In a California study, students in Grade 8 high-use social studies and math classes **outperformed** their peers on CA assessments for ELA and math. The study also found significant results for Hispanic students, English learners, and students impacted by poverty.
- In a statewide Kentucky study, schools that used Discovery Education had **higher test scores** across contents and student groups.

Statewide Impact

In a recent study on the effectiveness of *Experience* in the classroom, overall sentiment from participating educators was positive with respect to the digital learning platform and with respect to its usefulness and speaks to the strong teacher voice in our statewide partnerships. Specifically in Arizona **91%** of participants are likely or extremely likely to recommend DE to their colleagues, **84%** say the platform is useful or extremely useful, and **81%** are positive or extremely positive on the overall assessment of Discovery Education.

Participants in this study told us *Experience*:

- *is user friendly/easy to use and easy to navigate for students and teachers*

- *includes a deep and diverse coverage of timely, relevant content, covering a wide range of topics and subject areas*
- *is engaging and motivating for students*
- *provides high-quality content in a variety of formats*
- *is age/grade level appropriate*
- *provides great PD support*
- *provides differentiated/leveled content sensitive to nearly all types of differences in learning level (at grade level, special ed, advanced, etc.), circumstances, progression, etc.*

QUOTES from Statewide Teacher Users

“ I loved being able to find content of whatever we were going to be supporting, whatever standard we were supporting... of being able to find the content to give students visual interaction and of people actually talking about stuff and showing videos of it, it's very engaging for kids. ”

– Arizona Administrator

“ Discovery Education provides cross curricular connections and instruction for students that are beneficial to them having an authentic educational experience. ”

– Delaware Teacher

“ Discovery Education's platform led to high student scores on math, ELA, Social Studies, and Science assessments. Videos, illustrations, quizzes, games, worksheets, or other strategies increased students' creativity, desire to apply new knowledge, and sometimes ability to teach others. ”

– Arizona Teacher

“ The content is perfect for my fourth-grade class. The information is appropriate, and they love to answer the quiz at the end of each video. The platform is very easy to navigate, and I can find the content I am looking for within seconds. ”

– New Hampshire Teacher

“ It's nice to have supplemental videos that are short, to add to a lesson plan. But then having the longer videos is helpful for finishing up a unit of study. I also really like the interactive quizzes, which allow students to work through the learning process in a fun way. ”

– Nevada Teacher

We have also seen impacts in our other statewide and district-wide partnerships, such as Los Angeles Unified School District and Delaware. In Los Angeles we have seen the number of LAUSD users increase year over year, with this July's users **more than 4 times greater** than last year's users. In Delaware, where there is a corporate partnership with DuPont to increase STEM usage across the state, we have seen math and science resource usage increase as the partnership matures.

Discovery Education Study Reveals Widespread Impact on Achievement Across North Carolina

The Discovery Education Research & Analytics team compared partner schools in North Carolina to non-partner schools to study the link between Discovery Education and student achievement. Researchers compared the published school level data from the Accountability Services Division of the Public Schools of North Carolina for the 2016-2017 school year to a list of Discovery Education partners for the same time period. There are 116 NC School districts and 2,404

schools in the dataset. Of the 2404 schools, 62% are Discovery Education partners. This study found that across 34 performance indicators, schools with Discovery Education's services performed better on North Carolina's state assessments. The analysis of student assessment data in 2016-2017 at North Carolina's 2,404 public schools also revealed striking results among African American students, demonstrating up to an **11-point** statistically significant advantage over schools without Discovery Education services such as *Science Techbook*, *Math Techbook*, and *Streaming Plus* (an earlier iteration of the *Experience*).

Science Findings

Grade-Level Proficiency:

- An additional **4.3%** of students in Discovery Education partner schools meet the state's benchmark in the ACT Science section compared to students in non-Discovery Education schools.
- Discovery Education schools have a **6.7-point** advantage in EOC Biology.
- *Science Techbook* schools have a **3-point** advantage in EOG Science Grade 5.

College and Career Ready:

- Discovery Education schools have a **7.3-point** advantage in EOC Biology.
- *Science Techbook* schools have a **2–4-point** advantage in EOG Science for grades 5 and 8.

African American Students:

- *Science Techbook* schools have a **4-point** statistically significant advantage over non-Discovery Education schools in EOG Science Grade 5.
- Discovery Education schools have a **6.8-point** advantage in EOC Biology. An additional **6.8%** of African American students taking the EOC Biology assessment in Discovery Education partner schools meet the state's college and career ready benchmark compared to students in non-Discovery Education schools.
- *Science Techbook* schools have a **4-point** statistically significant advantage over non-Discovery Education schools in EOC Biology and EOG Science Grade 5.

Math Findings

Grade-Level Proficiency:

- Discovery Education schools have a **9-point** statistically significant advantage over non-Discovery Education schools in the End of Course (EOC) Math 1 assessment.
- An additional **5.5%** of students in Discovery Education partner schools meet the state's benchmark in the ACT Math section.
- Discovery Education partner schools perform particularly well throughout with a statistically significant advantage (over non-Discovery Education partners) in EOC Math 1, End of Grade (EOG) Math for grades 3, 4, 5 and 6, as well as in the ACT Math section.

College and Career Ready:

- Discovery Education schools have a **10.5-point** statistically significant advantage over non-Discovery Education schools in the EOC Math 1 assessment.
- Discovery Education partner schools perform particularly well throughout with statistically significant differences (over non-Discovery Education partners) in EOC Math 1, EOG Math for grades 3, 4, 5, 6 and 8, as well as in the ACT Math section.
- Discovery Education partner schools have about a **5-point** advantage over non-Discovery Education partner schools in terms of college and career ready compliance in grades 3, 4, and 5.

African American Students:

- Discovery Education schools have a **10-point** statistically significant advantage over non-Discovery Education schools in the EOC Math 1 assessment.
- An additional **6.6%** of African American students in Discovery Education schools achieve proficiency in the EOC Math 1 course.
- Discovery Education schools have an **11-point** statistically significant advantage over non-Discovery Education schools in the EOC Math 1 assessment.
- Discovery Education schools have a **3–4-point** statistically significant advantage in EOG Math grades 7 and 8.

Reading/ELA Findings

Grade-Level Proficiency:

- Discovery Education schools have a **5.4-point** statistically significant advantage over non-Discovery Education schools in the EOC English 2 assessment.
- Discovery Education schools have a **3–4-point** advantage in compliance with proficiency benchmarks over their counterparts in Reading for grades 3 through 5.
- Discovery Education schools are particularly strong in both the ACT English and ACT Reading sections with an additional **5%** of students meeting the state's benchmarks.

African American Students:

- Discovery Education schools have a **6.1-point** statistically significant advantage over non-DE schools in the EOC English 2 assessment.
- An additional **5%** of Discovery Education school students met the state's benchmarks in both the ACT English and ACT Reading sections.



DEN Program Research

The Discovery Educator Network (DEN) and its program offerings are designed to connect educators with each other to share best practices, instructional strategies, first-hand success stories, and solutions to daily challenges in the classroom.

In a study of the DEN Ambassadors Program, now called the DEN Workshop Series, findings showed significant impact in participants' reported use of DE tools and resources, participants' reported sharing of DE tools and resources with other colleagues, and in increasing logins and use of the platform. The greatest increases seem to be around the use and sharing of SOS Instructional Strategies. Participants also now feel like they are supported and a part of a broader online community.

- Over **90%** of respondents felt the DEN Program was either valuable or very valuable and **93%** of participants would recommend the program to a colleague. Participants were asked to rank, from most to least, what they felt they got from participating in the DEN Workshop Series. The top ranked answers were "use more SOS strategies," "how to use DE in my classroom better," and "a general understanding of resources available in DE."

DEN Workshop Participant Stats

- **80%** agree or strongly agree they can apply concepts and ideas explored in the DEN Workshop to impact learning in the classroom and/or school.
- **96.3%** found the DEN Workshop to be valuable or very valuable.
- **2 out of 3** teachers believe 'how to use DE in the classroom better' was a top outcome of the DEN Workshop.
- **94%** have already shared or are planning on sharing something they learned from the DEN Workshop with another educator.

Learn More

DiscoveryEducation.com/Research-Impact