



THE EDTECH COLLECTIVE

Instructure Partner Ecosystem

DISCOVERY EDUCATION *EXPERIENCE* LOGIC MODEL

ESSA Evidence Level IV Study

Prepared for:
Discovery Education

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¹ Note, this study is an updated version of an earlier ESSA Evidence Level IV study completed by Instructure for Discovery Education on May 19, 2023 (Scanlan et al., 2023).



EXECUTIVE SUMMARY

Discovery Education engaged with Instructure to develop a logic model for Discovery Education *Experience*. Instructure designed the logic model to satisfy Level IV requirements (Demonstrates a Rationale) according to the Every Student Succeeds Act (ESSA).²

Logic Model

A logic model provides a program roadmap, detailing program inputs, participants reached, program activities, outputs, and outcomes. Instructure collaborated with Discovery Education to develop and revise the logic model over time.

Study Design for Discovery Education *Experience* Evaluation

Informed by the logic model, Instructure developed a research plan for a study to meet ESSA Level III requirements. The proposed research questions are as follows:

1. To what extent will students use Discovery Education *Experience* during the 2025–26 school year?
 - a. On average, how many lessons and assignments will students complete during the 2025–26 school year?
2. To what extent will the average number of lessons and assignments that students complete relate to improved performance on standardized math or English language arts (ELA) tests?

Conclusions

This study satisfies ESSA evidence requirements for Level IV (*Demonstrates a Rationale*). Specifically, this study met the following criteria:

- ✓ Detailed logic model informed by previous, high-quality research
- ✓ Study planning and design is currently underway for an ESSA Level III or higher study

² Level IV indicates that an intervention should include a “well-specified logic model that is informed by research or an evaluation that suggests how the intervention is likely to improve relevant outcomes; and an effort to study the effects of the intervention, that will happen as part of the intervention or is underway elsewhere...” (p. 9, U.S. Department of Education, 2016).

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INTRODUCTION

Discovery Education engaged with Instructure to develop a logic model for Discovery Education *Experience*. Instructure designed the logic model to satisfy Level IV requirements (Demonstrates a Rationale) according to the Every Student Succeeds Act (ESSA).

The study had the following objectives:

- Define the Discovery Education *Experience* logic model and foundational research base.
- Draft an ESSA Level III study design.

Previous Research

Many educators, schools, and districts are not effectively using technology to enhance student learning in active and creative ways. Educators often spend valuable time searching for appropriate and high-quality instructional resources to support the unique needs of their students. Despite their best efforts, these resources may fail to engage and motivate their students in a way that enhances learning. Many educators are not trained to use them, exacerbating equity gaps between students regarding their access to high-quality digital learning supports (U.S. Department of Education, 2017).

Discovery Education *Experience* is founded on research that highlights key elements of effective implementation of educational technology in schools: (1) strong school and district leadership; (2) teacher professional development; (3) inclusive learning experiences; (4) engaging and motivating content; and (5) effective assessments.

1) Strong school and district leadership: Effective school and district leaders view technology as a tool that, when used properly, will enrich the learning process. When used strategically, technology is more effective at enhancing student learning than when it is used widely without thoughtful consideration of its role in the learning process (Brown, 2014; Richardson & Sterrett, 2018). Furthermore, technology use in educational settings is often ineffective and lacks systematic organizational strategies (Haynes & Shelton, 2018). When school and district administrators commit to research-based digital learning resources that support teaching and learning, student engagement and achievement increase (Richardson & Sterrett, 2018; U.S. Department of Education, 2017).

2) Teacher professional development: Effective teacher professional development is critical to support the teaching of complex skills students need to succeed in their academic and professional careers. These skills include, but are not limited to, critical thinking, problem-solving, content mastery, communication and collaboration skills, and self-regulation (Darling-Hammond et al., 2017). The core features of designing effective professional development for technology integration are that it should be content-focused, coherent, long-term, contextualized, incorporate active learning, support collaboration, and involve collective participation (Darling-Hammond et

al., 2017). When teachers and administrators fully engage in professional learning designed to improve teaching and learning, instructional practice improves.

3) Inclusive learning experiences: Research shows that providing children with engaging opportunities to solve real-world problems that contextualize their learning experiences is an effective instructional approach. For instance, learning has deeper meaning and authenticity when students engage with experiences that connect to the real world (Fougt et al., 2019). In addition, research shows that instructional strategies that make general education curriculum accessible to all students result in more inclusive learning experiences (Capp, 2017; Cervantes et al., 2015). Also, when lessons include multiple means of representation and expression, students are more engaged and deeper understanding and active learning can occur (Ok et al., 2016).

4) Engaging and motivating content: Engagement in real-world learning experiences through the effective use of technology leads to a deeper understanding of content and increases student engagement, motivation, and academic achievement (Bull & Keengwe, 2019). There is a need, however, to ensure that digital curricula are high-quality and aligned with learning standards (Educators for Excellence, 2020). As such, when high-quality, high-interest digital content is integrated into a classroom's daily learning routine, students are more engaged and more motivated to work through challenges, thus deepening learning.

5) Effective assessments: Data-based decision-making is critical to differentiated instruction (Faber et al., 2018). Formative assessment data aids teachers in designing lesson plans, evaluating student learning, and differentiating instruction (Heritage, 2021). When students are given access to detailed and timely feedback on assignments, they can self-monitor their learning, reflect on instruction, and set learning goals (Bailey & Heritage, 2018; Cauley & McMillan, 2010; Hattie & Timperley, 2007; Makkonen & Jaquet, 2020).

Discovery Education *Experience* provides a research-based digital learning resource that offers students the opportunity to learn using high-quality and engaging digital content. It recognizes that for educational technology to impact student learning positively, school and district administrators must set a vision for technology-enhanced learning, educators must be provided appropriate professional development support, and content must be inclusive, engaging, and focused on academic achievement. It has the potential to positively improve both student learning and educator practice.

LOGIC MODEL

A logic model is a program or product roadmap. It identifies how a program aims to impact learners, translating inputs into measurable activities that lead to expected results. A logic model has five core components: inputs, participants, activities, outputs, and outcomes (see Table 1).

Table 1. Logic model core components

Component	Description	More information
Inputs	What the provider invests	What resources are invested and/or required for the learning solution to function effectively in real schools?
Participants	Who the provider reaches	Who receives the learning solution or intervention? Who are the key users?
Activities	What participants do	What do participants do with the resources identified in Inputs? What are the core/essential components of the learning solution? What is being delivered to help students/teachers achieve the program outcomes identified?
Outputs	Products of activities	What are numeric indicators of activities? (e.g., key performance indicators; allows for examining program implementation)
Outcomes	Short-term, intermediate, long-term	<p>Short-term outcomes are changes in awareness, knowledge, skills, attitudes, and aspirations.</p> <p>Intermediate outcomes are changes in behaviors or actions.</p> <p>Long-term outcomes are ultimate impacts or changes in social, economic, civil or environmental conditions.</p>

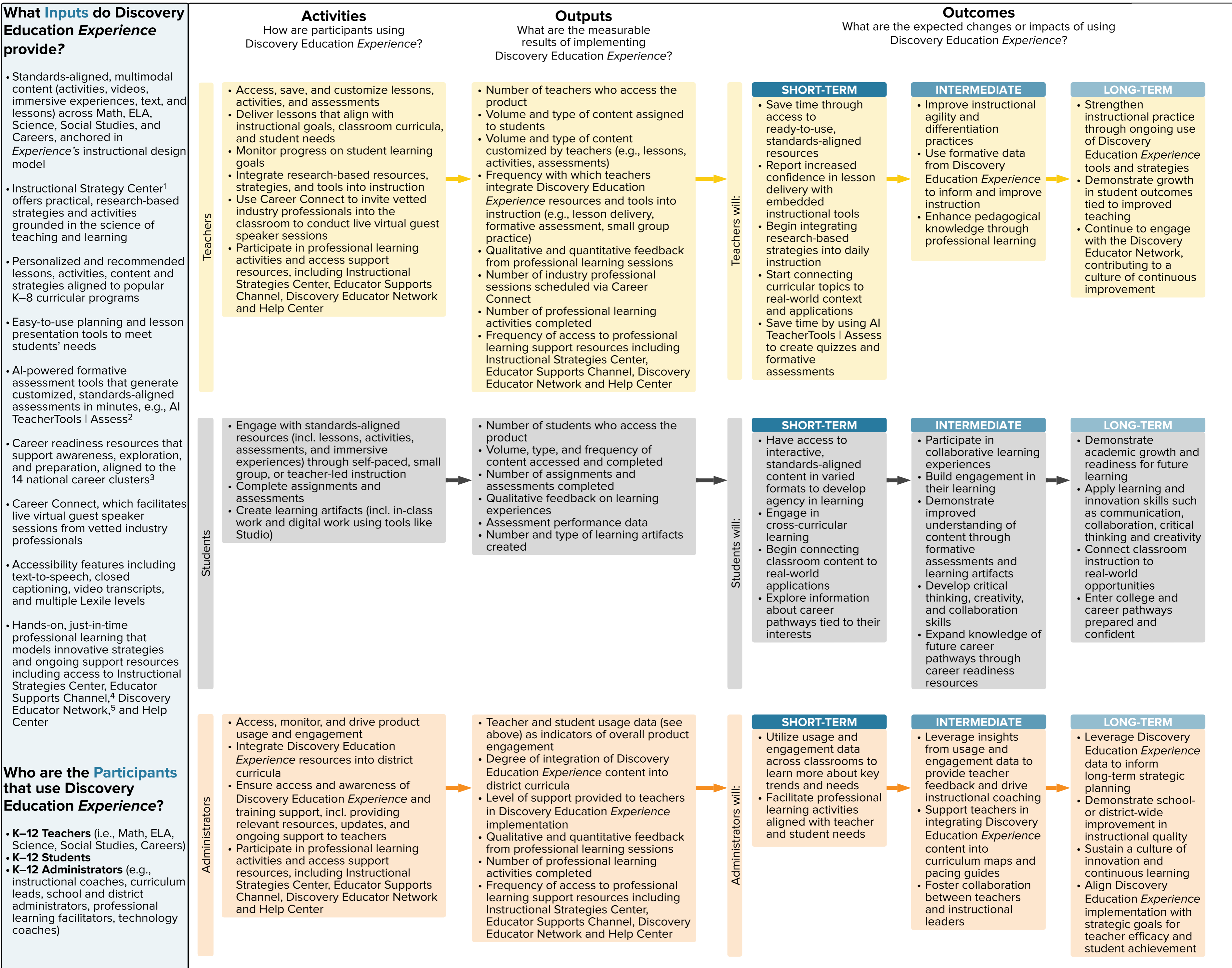
Instructure reviewed Discovery Education *Experience* resources, artifacts, and program materials to develop a draft logic model. Discovery Education reviewed the draft and provided revisions during virtual meetings. The final logic model depicted below (Figure 1) reflects these conversations and revisions.

Figure 1. Discovery Education *Experience* Logic Model



Problem Statement: Teachers face the challenge of meeting diverse student needs with limited time and resources, making flexible, high-quality tools essential. Discovery Education *Experience* provides a comprehensive cross-curricular K–12 supplemental solution with standards-aligned content, instructional tools, and career readiness resources that streamline planning, personalize learning, and foster engagement. By supporting instructional agility, it empowers teachers to meet students where they are, elevate instructional quality, and grow in their practice, ultimately helping all learners reach their full potential.

Logic Model



¹The **Instructional Strategies Center** is a hub for implementing research-based instructional strategies using Discovery Education resources. It organizes teacher supports by instructional phase, skill, and subject, and provides downloadable tools (e.g., PDFs, graphic organizers, videos, Studio templates) along with research foundations and alignment to Discovery Education's learning model and McREL's phases of instruction.
²**AI TeacherTools | Assess** enables teachers to create customized, standards-aligned assessments in seconds, with options to adjust reading level, standards, Bloom's Taxonomy, question type, and more, leveraging Discovery Education's cross-curricular resources for quick differentiation.
³The 14 national career clusters are a framework developed by the U.S. Department of Education that groups related careers and industries into 14 broad categories to guide career exploration and planning.
⁴The **Educator Supports Channel** is a curated hub within Discovery Education *Experience* offering on-demand resources, updates, and guidance to help teachers maximize product use and instructional impact.
⁵The **Discovery Educator Network** is a global community of teachers who share best practices, resources, and professional learning opportunities to foster collaboration and continuous improvement.

Problem Statement

Teachers face the challenge of meeting diverse student needs with limited time and resources, making flexible, high-quality tools essential. Discovery Education *Experience* provides a comprehensive cross-curricular K–12 supplemental solution with standards-aligned content, instructional tools, and career readiness resources that streamline planning, personalize learning, and foster engagement. By supporting instructional agility, it empowers teachers to meet students where they are, elevate instructional quality, and grow in their practice, ultimately helping all learners reach their full potential.

Discovery Education *Experience* Logic Model Components

Discovery Education invests several resources into their program, including:

- Standards-aligned, multimodal content (activities, videos, immersive experiences, text, and lessons) across Math, ELA, Science, Social Studies, and Careers, anchored in *Experience*'s instructional design model;
- Instructional Strategy Center³ offers practical, research-based strategies and activities grounded in the science of teaching and learning;
- Personalized and recommended lessons, activities, content and strategies aligned to popular K–8 curricular programs;
- Easy-to-use planning and lesson presentation tools to meet students' needs;
- AI-powered formative assessment tools that generate customized, standards-aligned assessments in minutes, e.g., AI TeacherTools | Assess;⁴
- Career readiness resources that support awareness, exploration, and preparation, aligned to the 14 national career clusters;⁵
- Career Connect, which facilitates live virtual guest speaker sessions from vetted industry professionals;
- Accessibility features including text-to-speech, closed captioning, video transcripts, and multiple Lexile levels; and

³ The Instructional Strategies Center is a hub for implementing research-based instructional strategies using Discovery Education resources. It organizes teacher supports by instructional phase, skill, and subject, and provides downloadable tools (e.g., PDFs, graphic organizers, videos, Studio templates) along with research foundations and alignment to Discovery Education's learning model and McREL's phases of instruction.

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⁵ The 14 national career clusters are a framework developed by the U.S. Department of Education that groups related careers and industries into 14 broad categories to guide career exploration and planning.

- Hands-on, just-in-time professional learning that models innovative strategies and ongoing support resources including access to Instructional Strategies Center, Educator Supports Channel,⁶ Discovery Educator Network,⁷ and Help Center.

Ultimately, *Discovery Education Experience* aims to reach teachers (i.e., Math, ELA, Science, Social Studies, Careers); students, and administrators (e.g., instructional coaches, curriculum leads, school and district administrators, professional learning facilitators, technology coaches) in Kindergarten through 12th grade.

Using these product resources, the aforementioned participants can engage with *Discovery Education Experience* in the following activities:

Teachers:

- Access, save, and customize lessons, activities, and assessments;
- Deliver lessons that align with instructional goals, classroom curricula, and student needs;
- Monitor progress on student learning goals;
- Integrate research-based resources, strategies, and tools into instruction;
- Use Career Connect to invite vetted industry professionals into the classroom to conduct live virtual guest speaker sessions; and
- Participate in professional learning activities and access support resources, including Instructional Strategies Center, Educator Supports Channel, Discovery Educator Network and Help Center.

Students:

- Engage with standards-aligned resources (incl. lessons, activities, assessments, and immersive experiences) through self-paced, small group, or teacher-led instruction;
- Complete assignments and assessments; and
- Create learning artifacts (incl. in-class work and digital work using tools like Studio).

Administrators:

- Access, monitor, and drive product usage and engagement;
- Integrate *Discovery Education Experience* resources into district curricula;
- Ensure access and awareness of *Discovery Education Experience* and training support, incl. providing relevant resources, updates, and ongoing support to teachers; and
- Participate in professional learning activities and access support resources, including Instructional Strategies Center, Educator Supports Channel, Discovery Educator Network and Help Center.

⁶ The Educator Supports Channel is a curated hub within *Discovery Education Experience* offering on-demand resources, updates, and guidance to help teachers maximize product use and instructional impact.

⁷ The Discovery Educator Network is a global community of teachers who share best practices, resources, and professional learning opportunities to foster collaboration and continuous improvement.

Discovery Education can examine the extent to which core activities were delivered and participants were reached by examining the following quantifiable outputs:

Teachers

- Number of teachers who access the product
- Volume and type of content assigned to students
- Volume and type of content customized by teachers (e.g., lessons, activities, assessments)
- Frequency with which teachers integrate Discovery Education *Experience* resources and tools into instruction (e.g., lesson delivery, formative assessment, small group practice)
- Qualitative and quantitative feedback from professional learning sessions
- Number of industry professional sessions scheduled via Career Connect
- Number of professional learning activities completed
- Frequency of access to professional learning support resources including Instructional Strategies Center, Educator Supports Channel, Discovery Educator Network and Help Center

Students

- Number of students who access the product
- Volume, type, and frequency of content accessed and completed
- Number of assignments and assessments completed
- Qualitative feedback on learning experiences
- Assessment performance data
- Number and type of learning artifacts created

Administrators

- Teacher and student usage data (see above) as indicators of overall product engagement
- Degree of integration of Discovery Education *Experience* content into district curricula
- Level of support provided to teachers in Discovery Education *Experience* implementation
- Qualitative and quantitative feedback from professional learning sessions
- Number of professional learning activities completed
- Frequency of access to professional learning support resources including Instructional Strategies Center, Educator Supports Channel, Discovery Educator Network and Help Center

If implementation is successful, based on a review of product outputs, Discovery Education can expect the following outcomes.

Teachers

In the short term, teachers will save time through access to ready-to-use, standards-aligned resources and save time by using AI TeacherTools | Assess to create quizzes and formative assessments. They will report increased confidence in lesson delivery with embedded instructional tools, begin integrating research-based strategies into daily instruction, and start connecting curricular topics to real-world context and applications. In the intermediate term, teachers will improve instructional agility and differentiation practices, use formative data from Discovery Education *Experience* to inform and improve instruction, and enhance pedagogical knowledge through professional learning. Long term, teachers will strengthen instructional practice through ongoing use of Discovery Education *Experience* tools and strategies, demonstrate growth in student outcomes tied to improved teaching, and continue to engage with the Discovery Educator Network, contributing to a culture of continuous improvement.

Students

In the short term, students will have access to interactive, standards-aligned content in varied formats to develop agency in learning. They will engage in cross-curricular learning, begin connecting classroom content to real-world applications, and explore information about career pathways tied to their interests. In the intermediate term, they will participate in collaborative learning experiences, build engagement in their learning, demonstrate improved understanding of content through formative assessments and learning artifacts, develop critical thinking, creativity, and collaboration skills, and expand knowledge of future career pathways through career readiness resources. Over the long term, students will demonstrate academic growth and readiness for future learning and apply learning and innovation skills such as communication, collaboration, critical thinking, and creativity. Finally, they will enter college and career pathways prepared and confident.

Administrators

In the short term, administrators will utilize usage and engagement data across classrooms to better understand key trends and needs and facilitate professional learning activities aligned with teacher and student needs. In the intermediate term, they will leverage insights from usage and engagement data to provide teacher feedback and drive instructional coaching, support teachers in integrating Discovery Education *Experience* content into curriculum maps and pacing guides, and foster collaboration between teachers and instructional leaders. Over the long term, administrators will leverage Discovery Education *Experience* data to inform long-term strategic planning, demonstrate school- or district-wide improvement in instructional quality, sustain a culture of innovation and continuous learning, and align Discovery Education *Experience* implementation with strategic goals for teacher efficacy and student achievement.

STUDY DESIGN FOR DISCOVERY EDUCATION *EXPERIENCE*

EVALUATION

To continue building evidence of effectiveness and to examine the proposed relationships in the logic model, Discovery Education has plans to conduct an evaluation to determine the extent to which its program produces the desired outcomes. Specifically, Discovery Education has plans to begin an ESSA Level III study to answer the following research questions:

1. To what extent will students use Discovery Education *Experience* during the 2025–26 school year?
 - a. On average, how many lessons and assignments will students complete during the 2025–26 school year?
2. To what extent will the average number of lessons and assignments that students complete relate to improved performance on standardized math or English language arts (ELA) tests?

CONCLUSIONS

This study satisfies ESSA evidence requirements for Level IV (*Demonstrates a Rationale*). Specifically, this study met the following criteria for Level IV:

- ✓ Detailed logic model informed by previous, high-quality research
- ✓ Study planning and design is currently underway for an ESSA Level III or higher study

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