KU ACHIEVEMENT & ASSESSMENT INSTITUTE
The University of Kansas

Accessible Teaching, Learning, & Assessment Systems

ATLAS *insights*

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ATLAS promotes learning and improved outcomes for all students, with a special focus on students with disabilities, by creating accessible, technology-based learning and assessment systems.

Contents

Director's note..... 2
Assessment..... 3
Research..... 5
5E-SESE..... 6
measr..... 7
PIE..... 8
SETTT for Success... 9
WRITE..... 10
Collaboration..... 11

Director's note

Every student deserves the opportunity to reach their full potential. At ATLAS, we break down barriers to create learning environments where all students, including those with significant cognitive disabilities, can succeed.

To meaningfully improve outcomes for all students, we must continue to search for better and more accessible approaches to teaching, learning, and assessment and explore the ways in which one informs the other. It's these connections that make the work we do at ATLAS unique.

Assessment should be a tool for learning, not just a measure of achievement. That's why we design assessments that provide valuable feedback to both students and educators, informing instruction and promoting growth.

Our diversified but focused research portfolio includes projects like measr, which helps researchers and practitioners transform student data into actionable information for educators. Our professional development programs, such as 5E-SESE and SETTT for Success, equip educators with effective strategies for teaching students with significant cognitive disabilities. We also address critical needs like improving argumentative writing skills through the WRITE program.

> *We are committed to providing educators with the resources and support they need to create learning environments where all students can thrive.*

In collaboration with the Missouri Department of Elementary and Secondary Education, we created the PIE project, a concept for the development of the first-ever instructionally embedded assessment for general education.

Through these projects, we aim to improve the learning landscape for all students. We are grateful to our dedicated staff, valued partners, and the educators who collaborate with us in this important work.

Meagan Karvonen
ATLAS DIRECTOR

Assessment

The Dynamic Learning Maps® (DLM®) Alternate Assessment System is our flagship operational assessment system and is delivered in 22 states and Palau.

DLM assessments are designed for students with the most significant cognitive disabilities for whom general state assessments are not appropriate.

110,864
STUDENTS

16,935
SCHOOLS

The assessments are aligned to grade-level college and career readiness standards at a reduced depth breadth, and complexity.

The assessment system offers students in grades 3–12 a way to show what they know and can do in English language arts, mathematics, and science.

29,519
EDUCATORS

All DLM counts reflect data from the 2023–2024 school year.

DYNAMIC® LEARNING MAPS

dynamiclearningmaps.org

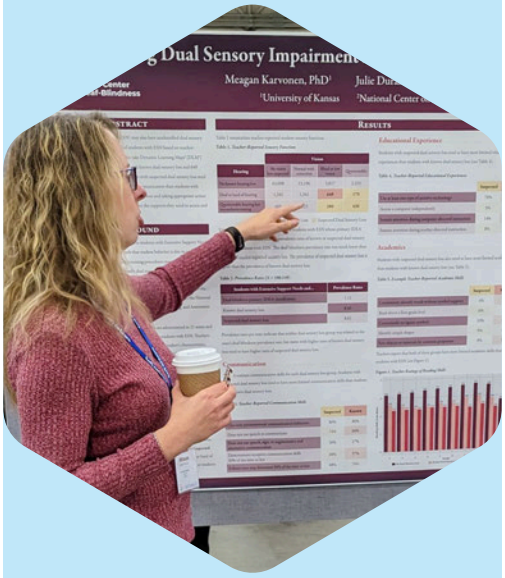
1,966,896
TEST SESSIONS

- Provide timely information for educators and parents
- Gauge student progress in relation to state standards
- Promote rigorous and relevant academic instruction

Delivered in Kite Suite

Kite™

Designed with built-in accessibility supports and a wide range of instructional supports, teachers have control over each student's assessment experience.



Research

At the core of ATLAS research is the belief that all students should have the opportunity to reach their full potential. We develop innovative teaching practices, learning resources, and assessment tools designed to meet a wide range of learning needs.

13 presentations

7 conferences

8 publications

2024

We expand our reach by sharing our work at conferences and in peer-reviewed journals. We also regularly collaborate with people and organizations that share our values.

These partnerships translate research into practice and help create an education landscape that supports all learners.

5E-SESE

Professional Development in SCIENCE EDUCATION for SPECIAL EDUCATORS

5E-Model Professional Development in Science Education for Special Educators (5E-SESE) is an approach to online professional development that equips teachers with new ways to teach science to students with significant cognitive disabilities.

Meagan Karvonen
PRINCIPAL INVESTIGATOR

Sarah Koebley
CO-PRINCIPAL INVESTIGATOR

Background

5E-SESE launched in September 2018 as a $1.4 million grant from the Institute of Education Sciences, U.S. Department of Education (R324A180202).

Purpose

Starting in 2015, many states adopted more rigorous, multidimensional science standards that raised expectations for all students. Most students with significant cognitive disabilities are taught by special educators who do not have deep knowledge of how to teach science.

5E-SESE filled the gap by introducing a new model for teaching inquiry-based science to students with significant cognitive disabilities. The project also introduced a professional development approach to help special educators apply the new model with their students.

Goal

5E-SESE will help teachers use the inquiry-based teaching model and Universal Design for Learning principles to design and implement multidimensional science lessons for students with significant cognitive disabilities.

> *This opportunity was well worth it, because I learned so much about myself as a teacher and also about my level of learner.*
> **Amy M.**
> *5E-SESE Participant, PA*

Impact

Shifted toward student-centered instruction

Innovation of UDL in science instruction

Increased teacher confidence in teaching science

measr

measr bridges the gap between theory and practice for diagnostic classification models (DCMs). Researchers use the software to try different types of models, evaluate model quality, generate reports, and visualize student data.

W. Jake Thompson
PRINCIPAL INVESTIGATOR

Background

The first measr grant launched in August 2021 as a $225,000 grant from the Institute of Education Sciences (IES), U.S. Department of Education. The second round of IES funding began in August 2024 and runs through July 2026 (R305D240032).

DCMs

DCMs are complex statistical models used in student assessment. They help education researchers identify student strengths and weaknesses in specific subjects.

Unlike traditional assessment models that rely on a single score, DCMs break down a student's performance into different skill areas called attributes.

This detailed information helps educators identify areas where the student excels and where they might need more support.

Goal

measr will bring the benefits of DCMs to researchers and practitioners at all skill levels by giving users a powerful new method for analyzing data.

> *By making advanced psychometric methods more accessible and maintainable, measr enhances our ability to deliver high-quality, data-driven insights for educators.*
> **W. Jake Thompson**

Impact

measr accelerates and strengthens key processes within the DLM Alternate Assessment System.

Before measr, extensive manual oversight of DCMs was required. With measr, updates happen faster through a unified framework.

14,000+
DOWNLOADS

PIE

PIE
Pathways for Instructionally Embedded Assessment

Pathways for Instructionally Embedded Assessment (PIE) is a research and development project to create an innovative assessment proof-of-concept model that gives students an opportunity to demonstrate competencies as they learn while producing results that may be used for statewide summative assessment purposes.

Brooke Nash
PRINCIPAL INVESTIGATOR

Eun Mi Kim
CO-PRINCIPAL INVESTIGATOR

Russell Swinburne Romine
CO-PRINCIPAL INVESTIGATOR

Background

PIE launched in October 2022 as a four-year, $2.5 million innovative assessment grant from the U.S. Department of Education (S368A220019) to the Missouri Department of Elementary and Secondary Education (DESE).

Purpose

MO DESE partnered with ATLAS to design and develop a comprehensive instructionally embedded assessment prototype that provides states with measures of student achievement and teachers with timely assessment data to inform their classroom instruction.

Goal

PIE will use research-based cognitive models of learning as the basis for assessments that give educators timely information about their students' academic progress.

Learning pathways created for the PIE project will help teachers guide students to academic success by showing them where the student is, where the student has been, and where the student is going.

Teachers can then tailor instruction throughout the school year to ensure that students make progress toward grade-level academic achievement.

> *PIE has the potential to reshape assessment by providing educators with the tools they need to inform instruction and monitor student progress within standards-aligned learning pathways.*
> **Brooke Nash**

Impact

Grounded in learning pathways aligned to content standards, **PIE is a proof-of-concept for the first-ever instructionally embedded assessment for general education.**

SETTT for Success

SETTT FOR SUCCESS
SPECIAL EDUCATOR TECHNOLOGY-BASED TRAINING OF TRAINERS

Special Educator Technology-Based Training of Trainers (SETTT) for Success helps teacher trainers design, deliver, and evaluate professional development no matter what the learning goals are for teachers.

Meagan Karvonen
PRINCIPAL INVESTIGATOR

Sarah Koebley
CO-PRINCIPAL INVESTIGATOR

Background

SETTT for Success launched in November 2020 as a $2.5 million grant from U.S. Department of Education (H327S200015).

Purpose

SETTT for Success elevates the knowledge and expertise of trainers who support teachers of students with significant cognitive disabilities.

Our approach provides trainers with the tools and resources they need to help teachers learn evidence-based practices, leading to improved academic outcomes for students.

Goal

SETTT for Success aims to:

- Increase trainers' expertise in implementing effective professional development cycles.
- Enhance the impact of professional development on teachers' use of evidence-based practices.
- Improve academic learning opportunities and outcomes of students with significant cognitive disabilities.

Impact

DLM alternate assessment scores from a pilot school district illustrates the impact of SETTT for Success. The following percentages represent student performance in 2023, before teacher trainer participation in SETTT for Success, compared to performance in 2024, after training was implemented.

Emerging *– Lowest performance level*

At Target *– Meets grade-level expectations*

English language arts

Emerging	At Target
▼ -22%	▲ 18%

Mathematics

Emerging	At Target
▼ -13%	▲ 5%

Science

Emerging	At Target
▼ -55%	▲ 23%

WRITE

Writing and Revising Interventions to Excel (WRITE) tackles a widespread problem, not just in Alaska, but across the United States. Many high school teachers, especially those in career and technical education, lack the formal training to effectively teach argumentative writing.

Dale Cope
PRINCIPAL INVESTIGATOR

Russell Swinburne Romine
CO-PRINCIPAL INVESTIGATOR

Jennifer Kobrin
CO-PRINCIPAL INVESTIGATOR

Background

WRITE launched in 2021 as a $1.75 million grant from the Alaska Native Education Program, U.S. Department of Education (S356A210063) to the Arctic Slope Community Foundation (ASCF), which joined forces with ATLAS.

Purpose

ASCF, dedicated to improving life in Alaska's northernmost region, recognized a critical need to strengthen students' argumentative writing skills. WRITE was created on the belief that argumentative writing is not just for English class and college-bound students.

Goal

The project goal was to boost confidence in teaching writing and increase teachers' content knowledge. WRITE provides high school teachers with a map-based instructional framework. The framework improves writing instruction and student writing at all skill levels.

A key component of WRITE is the development of three learning maps based on argumentative writing standards. Learning maps illustrate connections among the knowledge, skills and understandings needed to meet learning goals.

Impact

WRITE exceeded its original reach of Alaska Native students in remote locations to become **a statewide resource for all Alaska teachers through the Alaska Education Exchange**.

> *Writing skills are the new harpoon — essential tools that can help our youth navigate their futures with clarity and purpose.*
>
> **Patuk Glenn**
> *EXECUTIVE DIRECTOR, ASCF*
> ARCTIC SLOPE COMMUNITY FOUNDATION

Students felt positive about their writing, appreciated their teachers' support, and saw writing as crucial for their careers.

Teachers valued the professional development and found the learning maps and resources helpful for instruction.

Collaboration

We believe that meaningful change is achieved through strong partnerships and collaborations. We thrive on collaborations with dedicated educators and schools, whose participation is key to impactful solutions.

2024

31 collaboration opportunities

141 collaborating teachers

601 total collaborators

Through advisory, survey, and event opportunities, we foster a culture of continual learning and improvement.

Our partners and participants play a crucial role in identifying needs and helping us translate our ideas into solutions.

Thank you to our staff and partners for helping ATLAS improve the learning landscape for all students!

atlas.ku.edu
atlas-aai@ku.edu
785-864-7093