



Building Data-Literate Schools: Leadership for Teacher Research and Student Growth

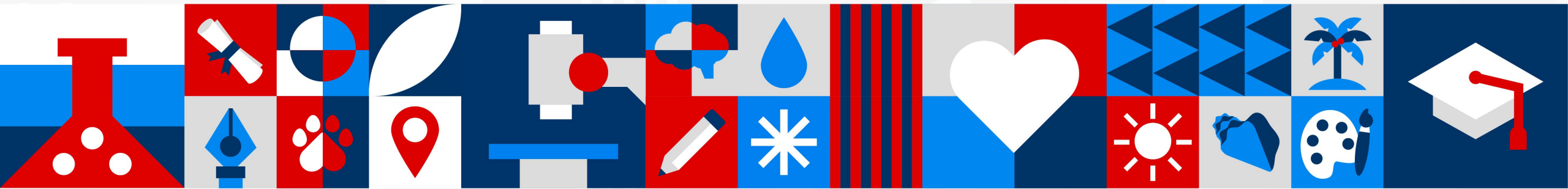
Michelle Vaughan-McGovern, Ed.D.
Interim Co-Chair and Professor
FAU Department of Curriculum and Instruction

Tricia Meredith, Ph.D.
Director of Research
FAU Lab Schools



FLORIDA ATLANTIC UNIVERSITY

DATA LITERACY



Teachers as Data Analysts

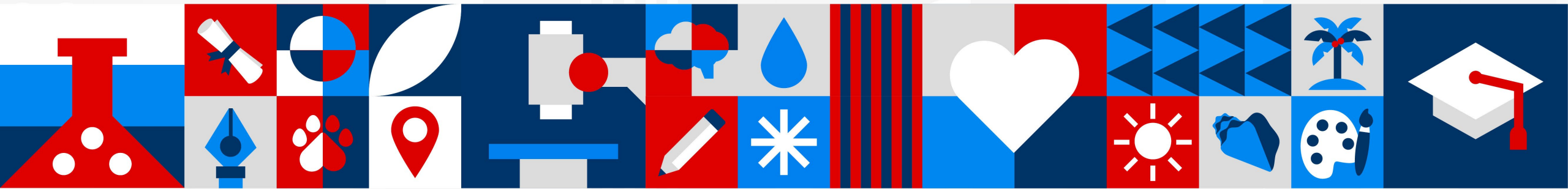
- 95% of teachers report using academic and nonacademic data to understand student learning
- 86% of teachers say they rely on data to personalize instruction for students
- 51% agreed that their principal or assistant principal ensures that teachers have the time they need to use data effectively
- 45% of teachers taught themselves how to interpret data on the job
- 17% of teachers learned how to use data in their teacher training program

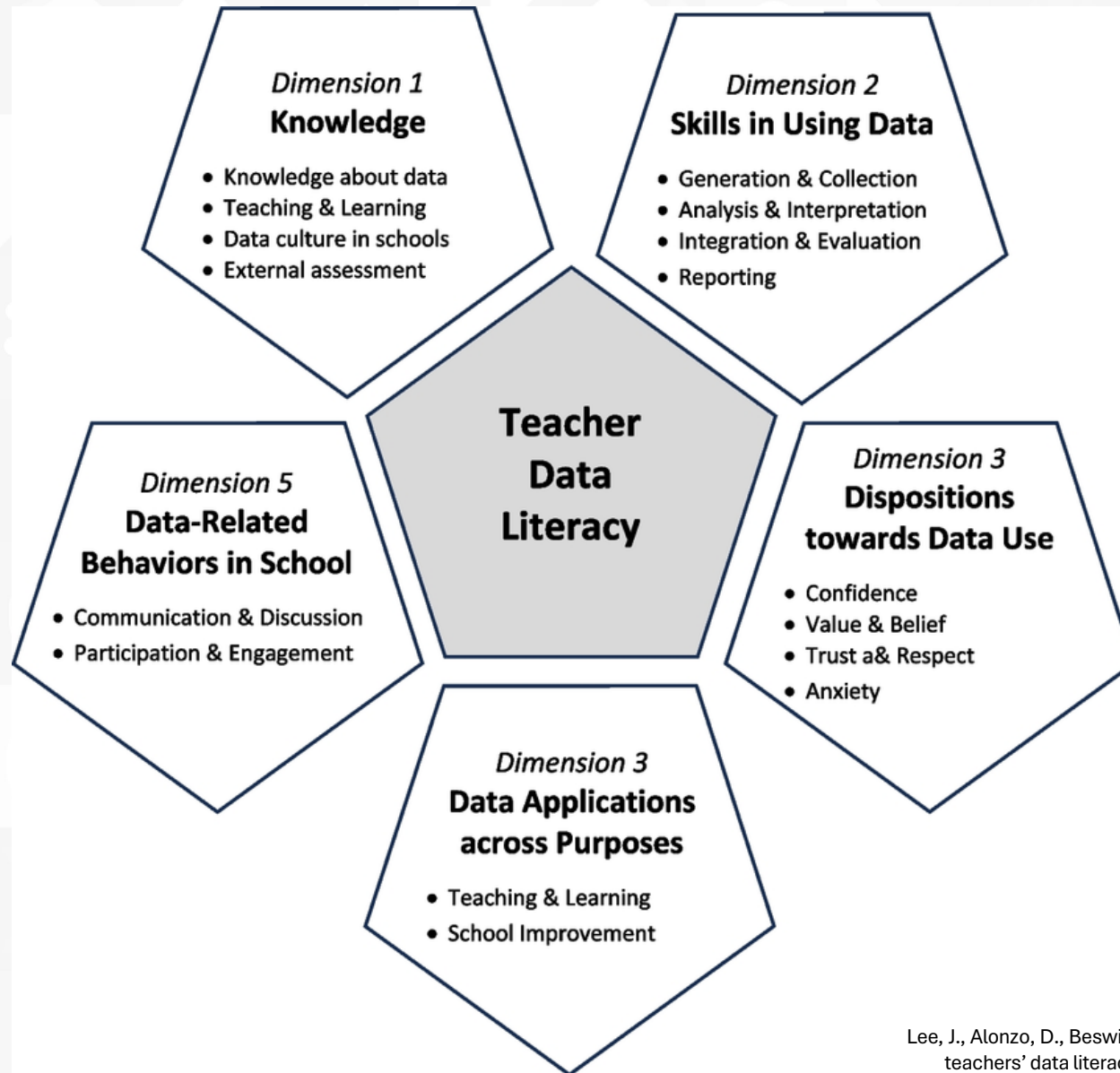




Instructional decisions based on evidence or data have the potential to be more sound.

However, exactly what knowledge and skills do teachers need to master to be a data-based decision maker in today's classrooms?





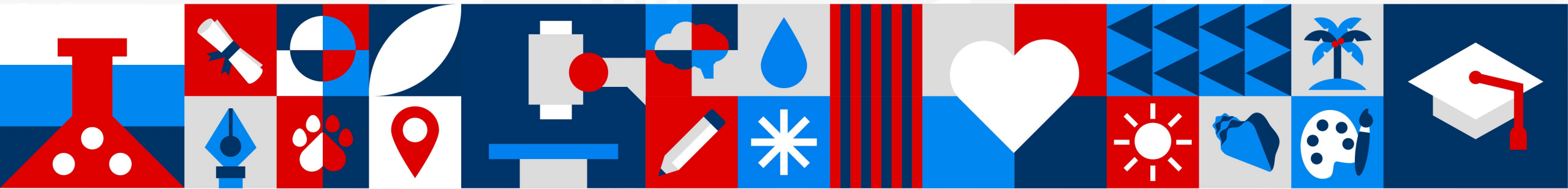
- **Knowledge** - Comprehensive understanding of a diverse range of data sources and purposes. Sole focus on standardized data hinders data-related knowledge.
 - *Do we draw upon a broad range of data sources to understand teaching and learning, or do we primarily rely on standardized assessment results?*
- **Skills in Using Data** - A wide range of skills, including data generation, collection, analysis, interpretation, evaluation, and reporting.
 - *How intentionally do we build teachers' capacity to analyze and interpret data collaboratively?*
- **Dispositions Toward Data Use** - Can impact effective utilization of data or impede the capacity to grow. In particular, social dynamics can greatly influence this.
 - *Does our school culture foster curiosity, trust, and openness around data, or do educators view data as something to fear or avoid?*
- **Dispositions towards Data Application** - Data literate teachers consider data use essential in fulfilling roles and responsibilities.
 - *What evidence suggests that educators see data-informed decision making as part of their professional identity?*
- **Data-related Behaviors in Schools** - Data literate teachers are actively engaged in communication and discussions to enhance use and understanding of data.
 - *How often do educators engage in meaningful conversations and collaborative inquiry around data to improve teaching and learning?*





For Discussion:

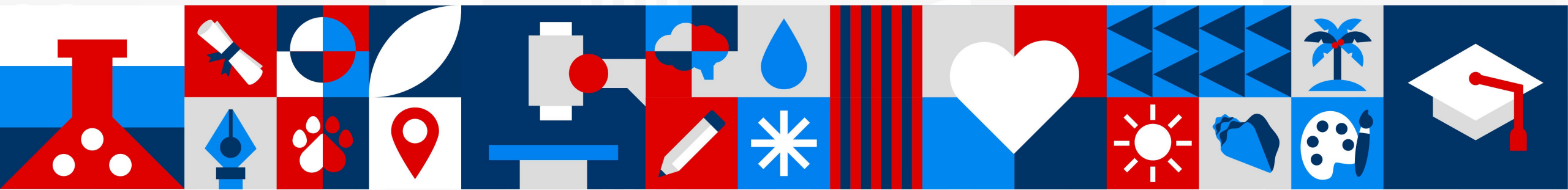
Consider your role/context. To what extent do you create the conditions for educators to understand, value, apply, and collaboratively use diverse forms of data to build teacher data literacy?





"Low data literacy could result in teachers misinterpreting information or relying on incomplete data sources, which undermines the potential of data-informed teaching to improve learning outcomes. Barriers such as limited professional development opportunities, insufficient training in data interpretation, and a lack of collaborative structures within schools further exacerbated these challenges, leaving many educators uncertain about how to translate data into actionable instructional practices" (Consistente, 2026, p. 161).

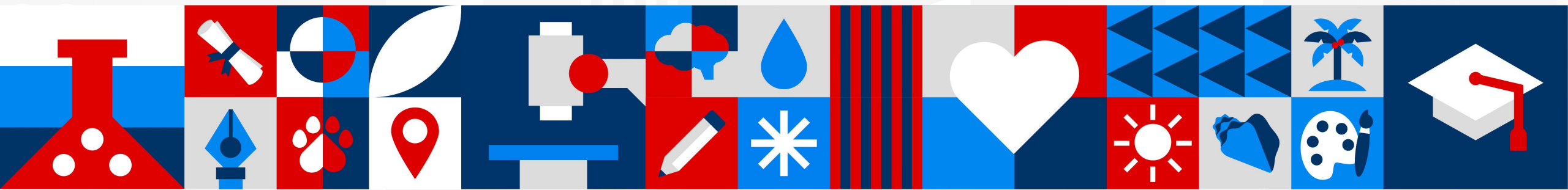
Consistente, A. F. (2026). Data-Informed Teaching and Action Research in Improving Evidence-Based Instruction. *Acta Pedagogica Asiana*, 5(2), 155-174.





FLORIDA ATLANTIC UNIVERSITY

ACTION RESEARCH

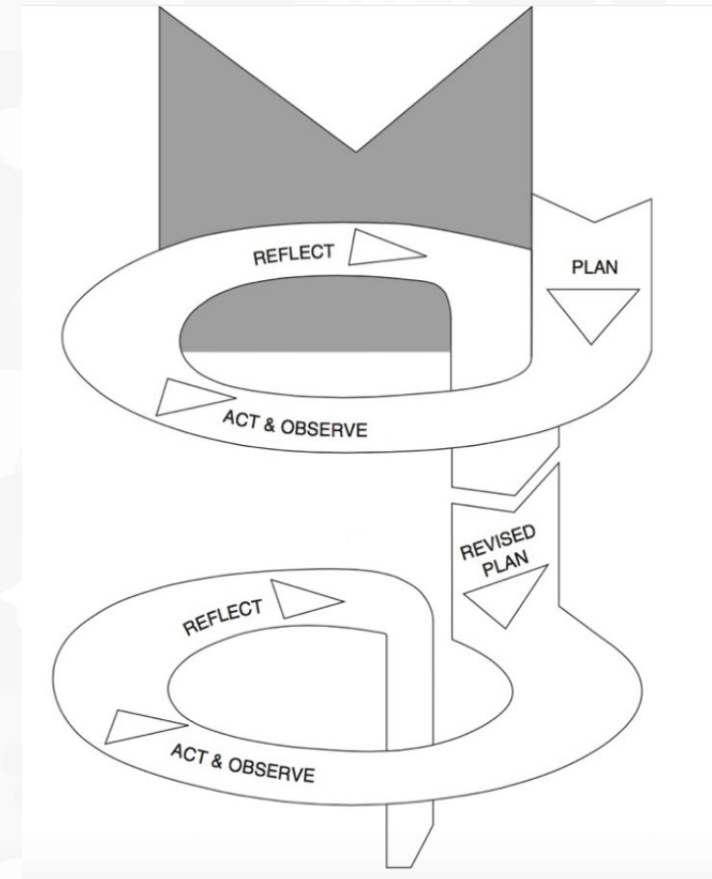


Action Research as the Vehicle for Teacher Data Literacy

In order to build these components...

- Knowledge about diverse data sources
- Skills in collecting and analyzing data
- Positive dispositions toward data use
- Application of data to practice
- Collaborative data-related behaviors

Educators need opportunities to engage in ongoing cycles of questioning, analyzing, deciding, and evaluating outcomes. Teacher data literacy develops through authentic inquiry, not isolated workshops.





Data Literacy Dimension

How Action Research Develops It

Knowledge

Teachers learn to use multiple data sources beyond standardized assessments

Skills

Teachers collect, analyze, interpret, and communicate findings

Dispositions Toward Data Use

Data become tools for learning rather than accountability

Dispositions Toward Application

Teachers see evidence use as part of professional decision making

Data-Related Behaviors

Inquiry promotes collaboration, discussion, and shared learning

Decades of research support the following...

Action
Research

Teacher Data
Literacy

Instructional
Improvement

Student
Learning

School
Improvement



TRADITIONAL MODEL

Teachers receive data generated by others.



1. DATA PROVIDED

Data is collected and prepared by others (district, centralized assessments, reports).



2. DATA INTERPRETED FOR THEM

Teachers receive interpretations or try to make sense of data without context or input.



3. DECISIONS MADE FOR THEM

Instructional decisions or initiatives are determined at the system level or by others.



4. IMPLEMENTATION

Teachers implement strategies designed by others.



5. RESULTS REPORTED

Outcomes are measured and reported back to teachers.



Teachers as Data Consumers

Limited ownership, limited voice, limited impact on improvement.

VS.

ACTION RESEARCH MODEL

Teachers generate, use, and act on their own data.



1. IDENTIFY A QUESTION

Teachers identify a real problem of practice or area for improvement.

2. COLLECT DATA

Teachers gather relevant data from multiple sources to understand the issue.

3. ANALYZE FINDINGS

Teachers examine and interpret the data to uncover patterns and insights.

4. TAKE ACTION

Teachers implement a strategy or change informed by the data.

5. REFLECT & REPEAT

Teachers evaluate results, reflect on learning, and refine their approach.



Teachers as Knowledge Creators

Ownership, professional agency, collaboration, and meaningful impact on student learning.

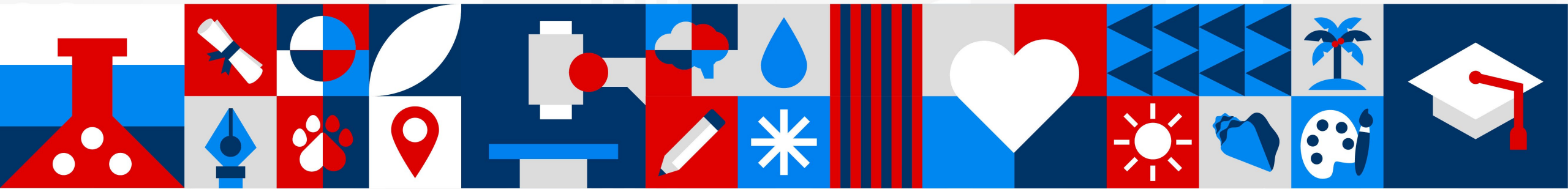
RESULT: Stronger Teacher Data Literacy | Better Instructional Decisions | Improved Student Learning | Sustainable School Improvement





FLORIDA ATLANTIC UNIVERSITY

COMPREHENSIVE EDUCATOR RESEARCH PROGRAM



FAU Laboratory Schools

- Public, K-12 school on FAU's campuses in Boca Raton and Jupiter
- Part of FAU's College of Education

Mission

- Demonstrate best practices in teacher education
- Innovate, develop, and provide students a challenging curriculum, balanced with innovative academic support
- Conduct and support emerging educational research



Research

at FAU Lab Schools



Support university research



Support science instruction



Guide dual enrolled FAUHS students in undergraduate research



Research facilities



Comprehensive Educator Research Program





Comprehensive Educator Research Program



Exploration:
New teacher
research
sessions



Level 1:
Graduate course
on action
research



Level 2:
Research
Communities of
Practice



Level 3: Mentor
new educator
researchers,
broaden study
scope



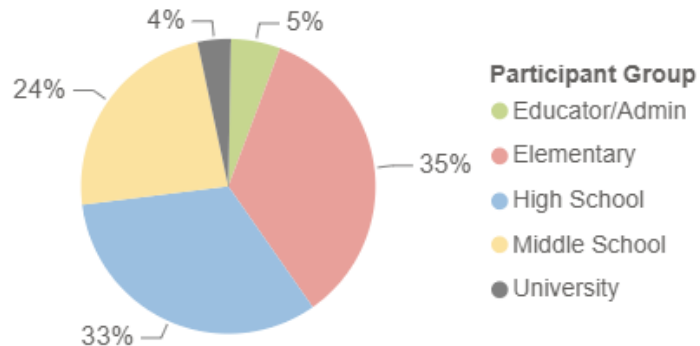
Level 4:
Educators
collaborate with
university
researchers



CERP Outcomes – 8 years of data

Educational Research Studies by ADHUS/FAUHS Teachers & Staff

101
Total Studies

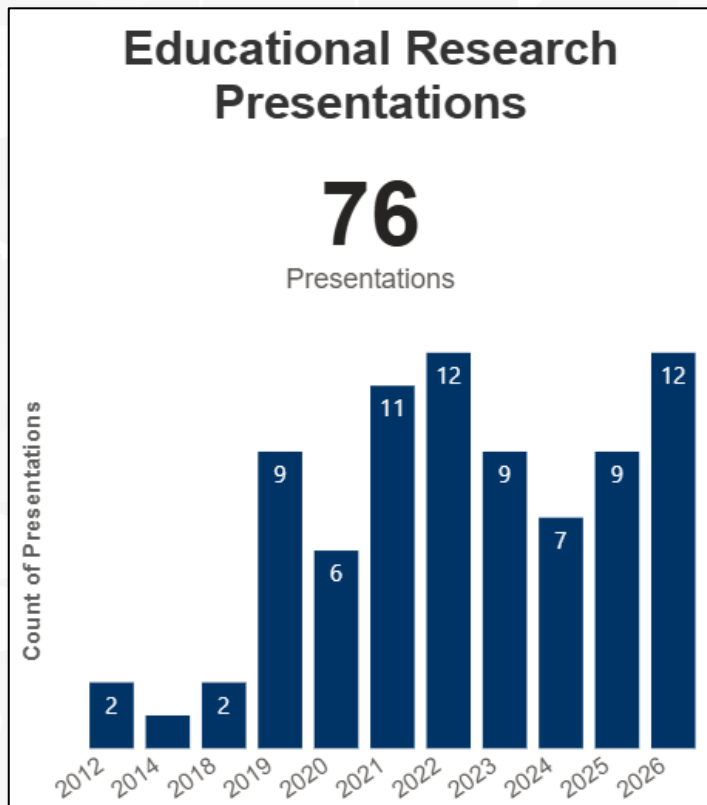


2025-2026

- ⊕ "Work in Progress": Teaching Social and Emotional Learning through Art
- ⊕ 4th Grade Structuring Math Small Groups
- ⊕ 5th Grade Real World Applications of Math
- ⊕ Beyond Broader Impacts: Making Curriculum-based Outreach Last Past Your Grant Completion
- ⊕ Chemistry of Cooking Club
- ⊕ Elective Course on Archaeology
- ⊕ Elective Course on DaVinci
- ⊕ Exploring Primary Students' Use of AI Image Prompting to Support Literacy Learning
- ⊕ From Collaboration to Creativity: Integrating Educational Robots into a STEAM and Science through Art Curriculum
- ⊕ Normalizing Tutoring for Advanced Learners: Reducing Stigma and Increasing Academic Support Utilization
- ⊕ PLC Support and Perception of PLC Value
- ⊕ Teens and AI Companions
- ⊕ The Impact of AI Supported Debate Preparation for Middle School Students
- ⊕ The Power of Collaborative Writing in an Upper-Level Undergraduate CURE
- ⊕ Using GeoGebra Constructions to Support Conceptual Understanding in Geometry



CERP Outcomes – 8 years of data



FAU Lab Schools Teacher Research

Search:

[ARTS](#) [CREATIVITY](#) [CULTURE](#) [DIVERSITY](#) [ELEMENTARY SCHOOLS](#) [HIGH SCHOOLS](#) [IMPACT](#)
[LITERACY](#) [MIDDLE SCHOOLS](#) [RESEARCH](#) [SCIENCE](#)

Is Immersive Online Content (IOC) Approach in the Form of Virtual Reality (VR) an Effective Method for Generating High-Quality Online STEM Labs?
Jennifer Qi
[CREATIVITY](#) [HIGH SCHOOLS](#) [IMPACT](#)

There is a gap between faculty willingness to hold an online STEM laboratory course and student demand for high-quality online instruction.

Studio Sessions – Year Two
Lizbeth Cline, Katherine Henderson, Ashley Tai
[IMPACT](#) [HIGH SCHOOLS](#) [MIDDLE SCHOOLS](#)

This project aims to investigate the benefits of creative expression in an after-school club called Studio Sessions. Benefits may include reduced stress and increased feelings of sense of belonging with school/teammates.

How Does the Use of Minute Meetings Help Proactively Identify Students in Need of Counseling Interventions?
Jill Dean
[CULTURE](#) [ELEMENTARY SCHOOLS](#) [IMPACT](#)

To counteract these challenges and shift towards a more proactive counseling model, the implementation of "minute meetings" – brief, individualized proactive emotional check-ins – becomes imperative.

What Effect Does Physical Activity Have on 6th-Grade Students' Academic Stress?
Cristina Garcia
[CREATIVITY](#) [IMPACT](#) [MIDDLE SCHOOLS](#)

By demonstrating the positive impact of physical activity on stress reduction, physical education is positioned as a key contributor to academic success.

Reaching for the S.T.A.R.s: Student Advancement, Involvement and Reflections Within a STEM Education Program
Catherine Henderson
[ELEMENTARY SCHOOLS](#) [IMPACT](#) [IMPACT](#)

Gaining a better understanding of the depth and breadth of the S.T.A.R. program by analyzing overall student involvement and engagement within S.T.A.R. Program activities are vital for program sustainability and improvement.

Learning High-Frequency Words through Multi-Sensory Activities
Bernadette Stewart & Grace Mann
[CULTURE](#) [ELEMENTARY SCHOOLS](#) [READING](#)

We noticed that not all students were acquiring these high-frequency words at the same rate. Based on the research related to the science of reading, we need to change our method of teaching these words to our students.

How Effective are "Wise Interventions" in Fostering Teacher Buy-in?
Lisa Strasser & Terence Cook
[CULTURE](#) [DIVERSITY](#) [IMPACT](#)

Our research focuses on the impact of "wise interventions" with the goal of fostering positive change in attitudes, behaviors, or outcomes of the Character Counts! Program at A.D. Henderson University School.

Statistical Learning to Identify Student Performance upon Kindergarten Entry
Tasha Hinkle
[ELEMENTARY SCHOOLS](#) [IMPACT](#) [READING](#)

The present study introduces a prescriptive approach that leverages predictive analytics to forecast academic outcomes before the school year begins and remains consistent with classroom teacher observations.

Noteworthy Science: Guided Notes in 5th Grade Science
Maryann Williams
[ELEMENTARY SCHOOLS](#) [READING](#) [SCIENCE](#)

By investigating the impact of guided notes on student comprehension, engagement, and the development of independent note-taking skills, this research seeks to inform instructional practices, benefiting both teachers and students.



Key Components for Transformation and Transfer

Scaffolding

Support to build skill, gradual release

Build on prior knowledge

Provided in CERP levels and shift to independence

Choice

Participation is optional

Participants select research topic

Inclusive of teachers, staff, administrators

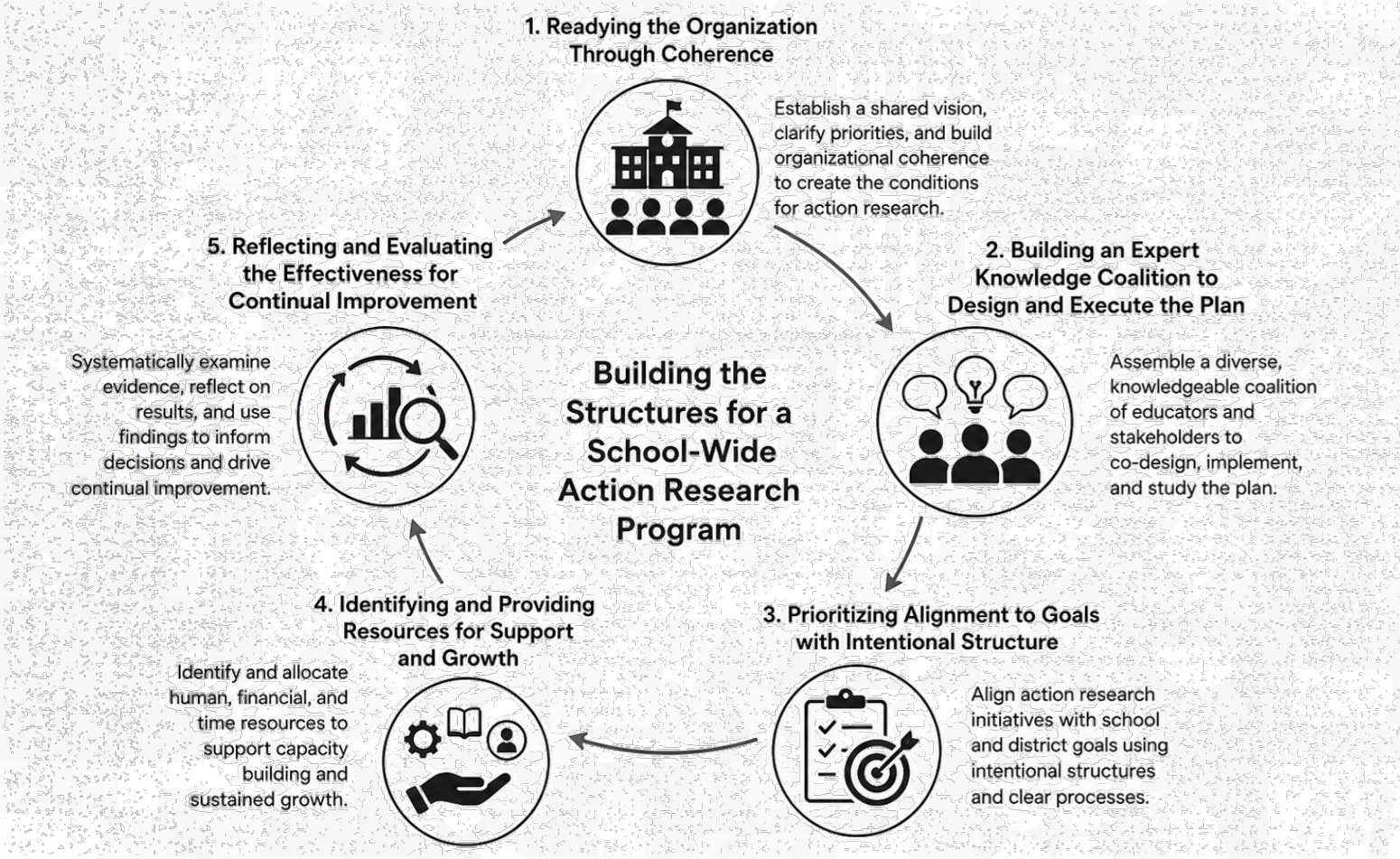
Collaboration

Hallmark of high-quality PD and strong school culture

Formal and informal opportunities

Within grades, across topics, with university partners

Leadership Components for Building a School-Wide Action Research Program





Benefits of Conducting Research

Leverage competitive grant to provide an incentive to faculty

Opportunities to present and publish results

Engage as collaborators in university research studies

Support accreditation process

Research informs practice and benefits students

Expanding our Reach

Action Research Fellows Program

Center for Educational Strategy and Innovation

FLORIDA ATLANTIC Center for Educational Strategy & Innovation About the Center More Search Apply for the 2026-2027 Cohort Give

WHAT IF YOUR TEACHING COULD SHAPE THE FUTURE OF EDUCATION?

Join a dynamic cohort of classroom educators committed to excellence in action research. Apply to become an Action Research Fellow and help advance student learning through evidence-based inquiry in your classroom.

[LEARN ABOUT THE 2026-2027 COHORT](#)

The Action Research Fellow program positions teachers as researchers. Fellows complete a structured, graduate-level course that builds data literacy and research design skills while conducting an action research project in their classroom. Findings of the research project will be presented at the annual Brainwaves Action Research Symposium at Florida Atlantic. Throughout the process, Fellows will receive support and guidance in conducting their study and in preparing a manuscript of their findings for publication, contributing to the broader academic knowledge base.

Core Elements

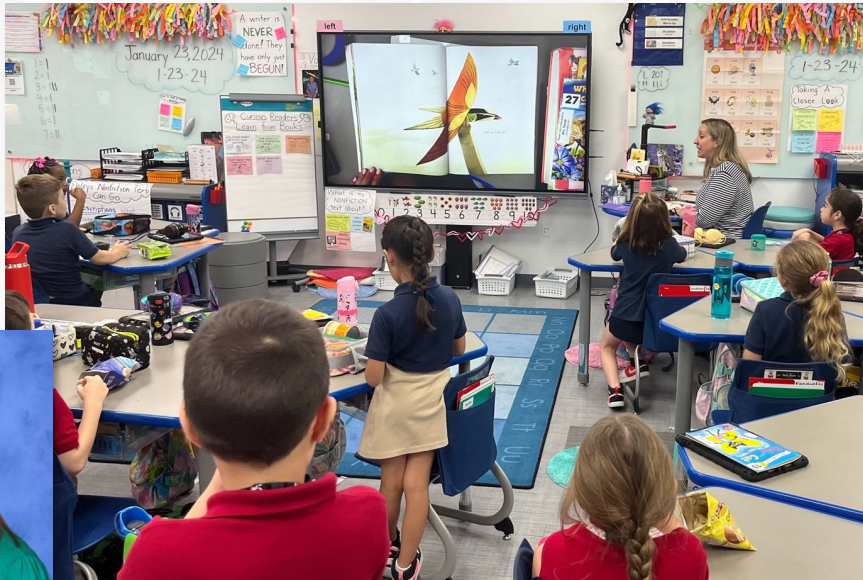
- Study & Engage**
FAU College of Education, 3-credit course (online) focused on research design, inquiry, and data literacy.
- Present**
Share findings at the FAU Lab Schools Annual Brainwaves Action Research Symposium.
- Publish**
Prepare manuscripts for peer-reviewed journals and formal dissemination.

Benefits

- Free Tuition** for a customized 3-credit online graduate course at FAU, transferable to an advanced degree.
- Mentorship** from experienced action researchers and facilitators.
- Structured Support** to complete an action research project in your classroom.
- Expert Guidance** and writing support to present and publish research findings in peer-reviewed venues.
- Featured Presenter Spot** at the annual Brainwaves Symposium.
- Develop Data Literacy** and research design competencies with ongoing mentoring and support from experienced facilitators.
- Elevate Professional Visibility** as action research scholars.
- Build a Network** of fellow action researchers and future collaborators.
- Contribute** practitioner perspectives to the field of education research.



Meet Our Action Researchers



Cara Pavek, M.S.
First Grade Teacher
A.D. Henderson University School



Christopher Clevenger, M.Ed.
9th Grade Social Studies Teacher
FAU High School



Contact us:
ARFellowsCESI@fau.edu

Visit our website to see more
action research:
<https://labschools.fau.edu/teacher-research/>

FLORIDA ATLANTIC UNIVERSITY