



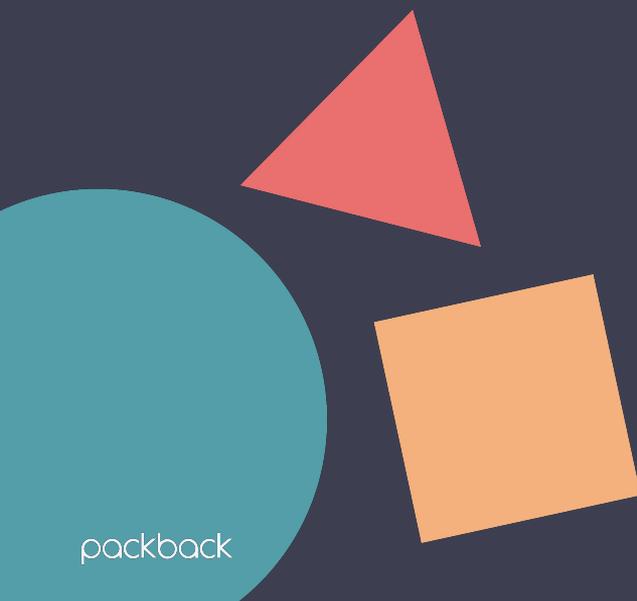
packback
Fearlessly curious.

The Spark That Ignites Retention, Persistence, and Completion

September 18th, 2025

packback

Housekeeping



- **Webinar Recording will be shared with all attendees within 2 days.**
 - Access all recordings at [Packback.co/webinars](https://packback.co/webinars)
- **Ask all questions with the Q&A feature.**
 - The Q&A feature will surface questions where I can see them.
- **Use the chat for discussion and sharing.**
- **Packback team members will be monitoring the Q&A and using the chat to share resources.**

Hi!



Dr. Craig Booth

Chief Technology Officer
Packback

Learning as an Engine



Curriculum and Resources

The fuel

Full of potential, but
inert on its own



Faculty and Pedagogy

The engine block

The structure and foundation
of everything



Engagement

A spark

Needed to kickstart the reaction

Engagement is the **spark** that makes the magic happen.

I know I'm stating the obvious and you wouldn't be here if you didn't already believe that :)





**Our task today is simply to try and
bring into focus *why* and *how*.**

QUICK POLL

What's the biggest challenge facing you or your institution?

(e.g. Test scores, student retention, unmitigated AI use, aligning financial incentives, equity gaps)

PART 1

Engagement and Outcomes:

The evidence that engagement is the spark

PART 2

Not all Engagement is Equal:

How, when, and where should we focus?

PART 3

Engagement at Scale:

Institutional impact of improving engagement

PART 4

Tools to Increase Engagement:

A six-point guide to driving behavior change

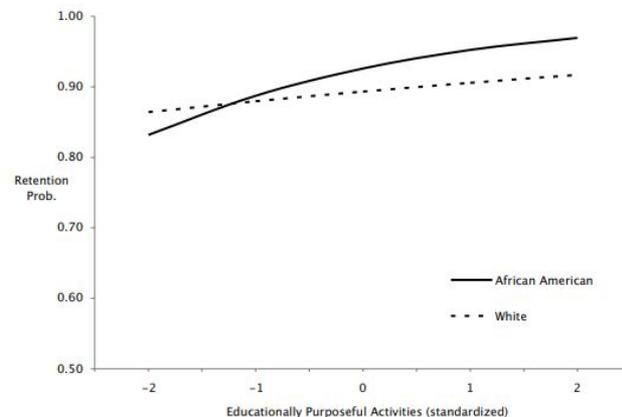


Engagement Keeps Students Enrolled

- “Student engagement in educationally purposeful activities is positively related to ... **persistence between the first and second year** of college.”
- “Each standard-deviation increase in student engagement **raises the odds of second-year retention by 17%**, and can increase the likelihood of persistence from 75% to 95% depending on engagement level.”

Unmasking the Effects of Student Engagement on First-Year College Grades and Persistence

JE George D. Kuh Jillian Kinzie
Ty M. Cruce Robert M. Gonyea
Rick Shoup





Engagement Improves Academic Performance

Engagement interventions are also directly predictive of academic performance.

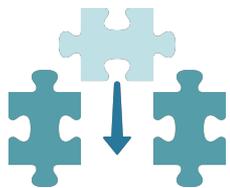
Relationship between student engagement and academic performance

Megi Çali¹, Loren Lazimi¹, Beatrice Maria Luna Ippoliti²

¹Faculty of Economy, University of Tirana, Tirana, Albania

²Head of the Project Office, University Metropolitan of Tirana, Tirana, Albania

“ Behavioral engagement is a significant predictor of academic performance, showing a strong positive correlation with grades.”



Engagement Closes Gaps

Engagement narrows persistence gaps:
Less-engaged students exposed to interactive peers were 6.3 percentage points more likely to enroll in the following term

Research Article

Connections Matter: How Interactive Peers Affect Students in Online College Courses

Eric Bettinger, Jing Liu, Susanna Loeb

First published: 27 June 2016 | <https://doi.org/10.1002/pam.21932> | Citations: 32

[Read the full text >](#)

 PDF  TOOLS  SHARE

“ We find that for students who are relatively less likely to be engaged in online discussion, exposure to more active peers increases their probabilities of passing the course and achieving a higher earned grade and course points”



Engagement Reduces Failure

- Active learning's effectiveness is evidence that when students are engaged, outcomes improve.
- Active learning reduces D/F/W rates by 33–55%
- Engagement not only lifts performance—it prevents attrition.

packback

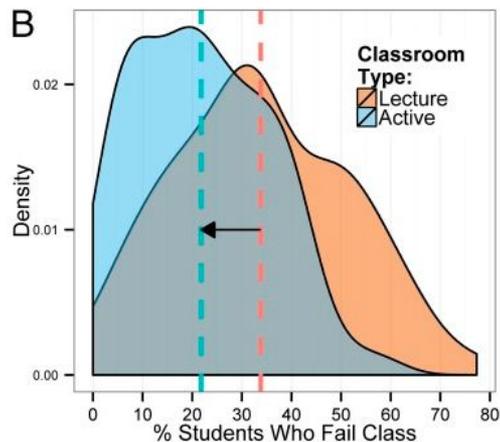
> Proc Natl Acad Sci U S A. 2014 Jun 10;111(23):8410-5. doi: 10.1073/pnas.1319030111. Epub 2014 May 12.

Active learning increases student performance in science, engineering, and mathematics

Scott Freeman¹, Sarah L Eddy², Miles McDonough², Michelle K Smith³, Nnadozie Okoroafor², Hannah Jordt², Mary Pat Wenderoth²

Affiliations + expand

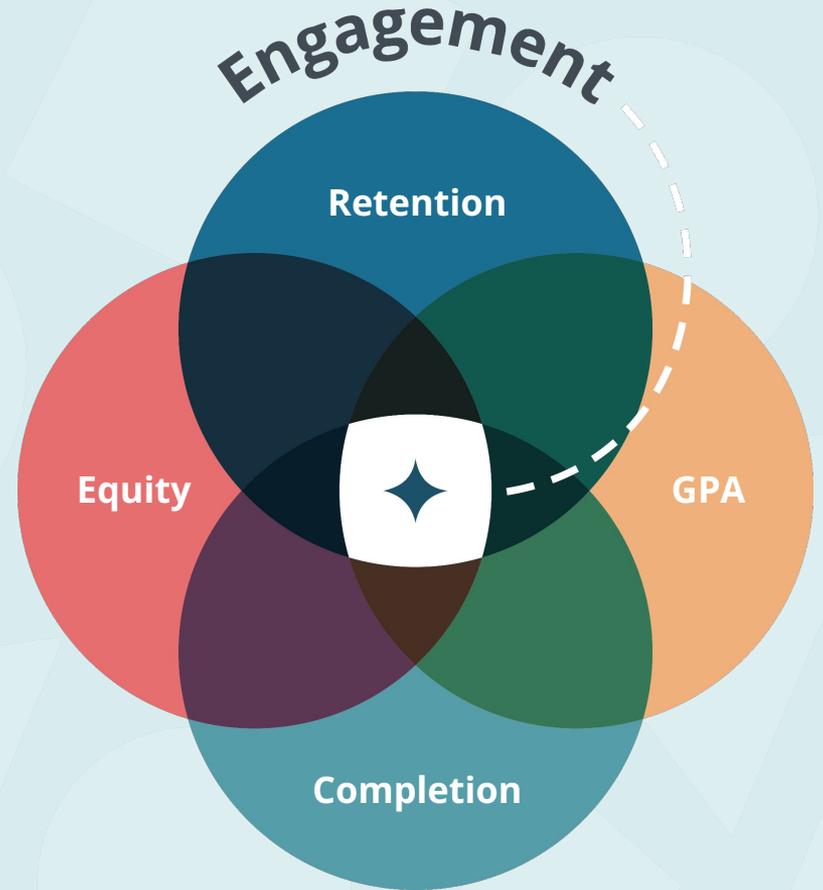
PMID: 24821756 PMID: PMC4060654 DOI: 10.1073/pnas.1319030111



Engagemen

It is the Common Denominator

Engagement isn't a side benefit—it's a causal driver behind persistence, achievement, and equity.



QUICK POLL

How Confident Do You Feel that Your Current EdTech Stack is Meaningfully Engaging Your Students

Please answer in the zoom
polling function!

PART 1

Engagement and Outcomes:

The evidence that engagement is the spark

PART 2

Not all Engagement is Equal:

How, when, and where should we focus?

PART 3

Engagement at Scale:

Institutional impact of improving engagement

PART 4

Tools to Increase Engagement:

A six-point guide to driving behavior change

Engagement is multi-faceted

Many engagement interventions have been tried and met with some success.

I want to make the case that fundamentally improving engagement is an in-classroom challenge.

RESEARCH AND PRACTICE OF STUDENT RETENTION: WHAT NEXT?*

VINCENT TINTO

Syracuse University

Pell Institute for the Study of Opportunity in Higher Education

“Though we have learned much about why students leave, the real challenge ahead is turning that knowledge into sustained institutional action—especially in classrooms and for low-income students—so that access to higher education becomes genuine success rather than a revolving door.”

Academic Advising: Organizing and Delivering Services for Student Success. New Directions for Community Colleges, Number 82.

King, Margaret C., Ed.

New Directions for Community Colleges, n82 Sum 1993

Evaluating the Outcomes of Developmental Education

Hunter R. Boylan, Barbara S. Bonham, Gamba Nwachi Tafari

Washington Center News
Fall 1987

Seven Principles For Good Practice in Undergraduate Education

by Arthur W. Chickering and Zelda F. Gamson

Academic advising / consulting services help, but...

- Is outside the core learning experience, so they can't affect the day-to-day disengagement.

Remedial classes help, but...

- Does not integrate struggling students into mainstream academic and social life.

Early Alert / Deficiency Tracking Systems help, but...

- By the time students are flagged, disengagement is often entrenched. Focus is on "repair".

Review of Educational Research
Fall, 1983, Vol. 53, No. 3, Pp. 397-414

College Programs for High-risk and Disadvantaged Students: A Meta-analysis of Findings

Chen-Lin C. Kulik, James A. Kulik, and Barbara J. Shwalb
The University of Michigan

One-off learning skills workshops help, but...

- Doesn't change the classroom culture of passive learning that drives disengagement in the first place.

Shaping Retention from Research to Practice

Braxton, John M.; Brier, Ellen M.; Steele, Stephanie Lee

Journal of College Student Retention: Research, Theory & Practice,
v9 n3 p377-399 2007-2008

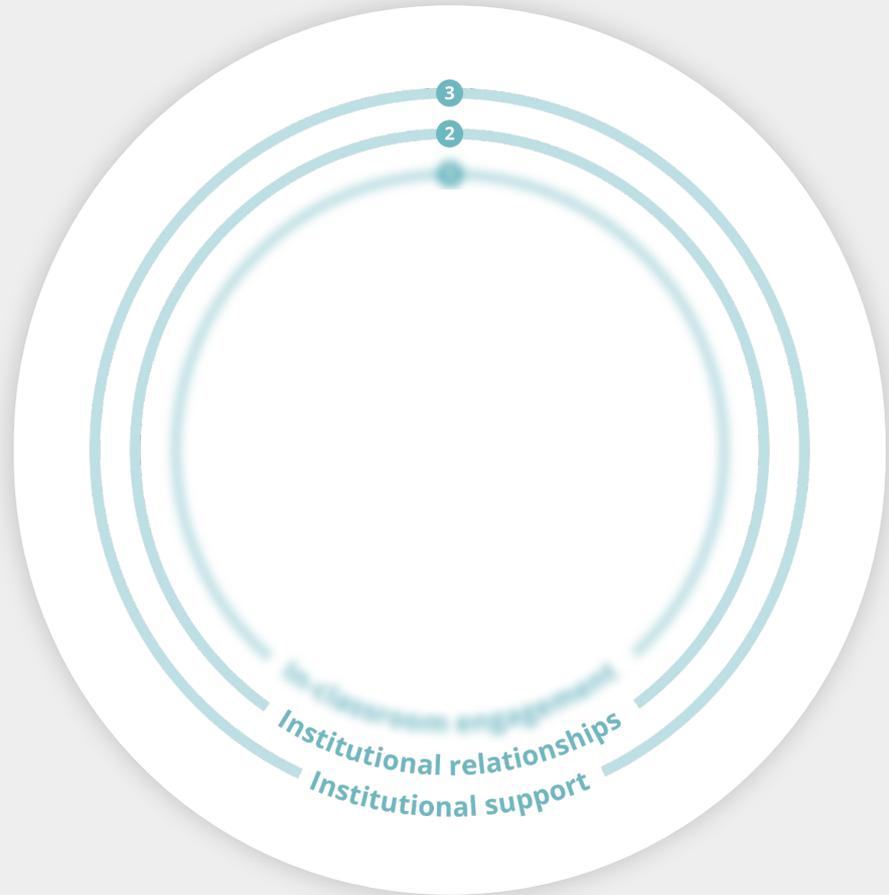
Retention Departments help, but...

- Retention can become siloed rather than a faculty-driven, classroom-centered responsibility.

Retention as Engagement in Learning

These are all *good things*, but they're *one part* of the strategy.

They all happen *outside* of the classroom.



“Inside the Classroom Isn’t Enough”

1 Busywork Participation

What it Looks Like

Mandatory discussion posts on LMS forums, clicker questions every class, or grade-for-attendance.

Why it Doesn't Work

Students comply mechanically (post once to get credit, answer with minimal effort) without deeper cognitive or social engagement.

2 Q&A at the End

What it Looks Like

The instructor delivers content, asks if there are questions, and maybe calls on a few students.

Why it Doesn't Work

The structure keeps students passive. Engagement here is surface-level and benefits only the most confident students.

3

Overemphasis on Rote Assessments

What it Looks Like

Frequent low-stakes quizzes that test recall, not reasoning.

Why it Doesn't Work

May increase time-on-task, but without cognitive or social engagement, it doesn't improve persistence. Students can pass quizzes while still feeling disconnected from the learning community.

4

One-Way Technology Substitutions

What it Looks Like

Posting recorded lectures or PowerPoint decks in the LMS and calling that "engagement."

Why it Doesn't Work

Technology replicates the transmission model instead of enabling inquiry, collaboration, or feedback.

5

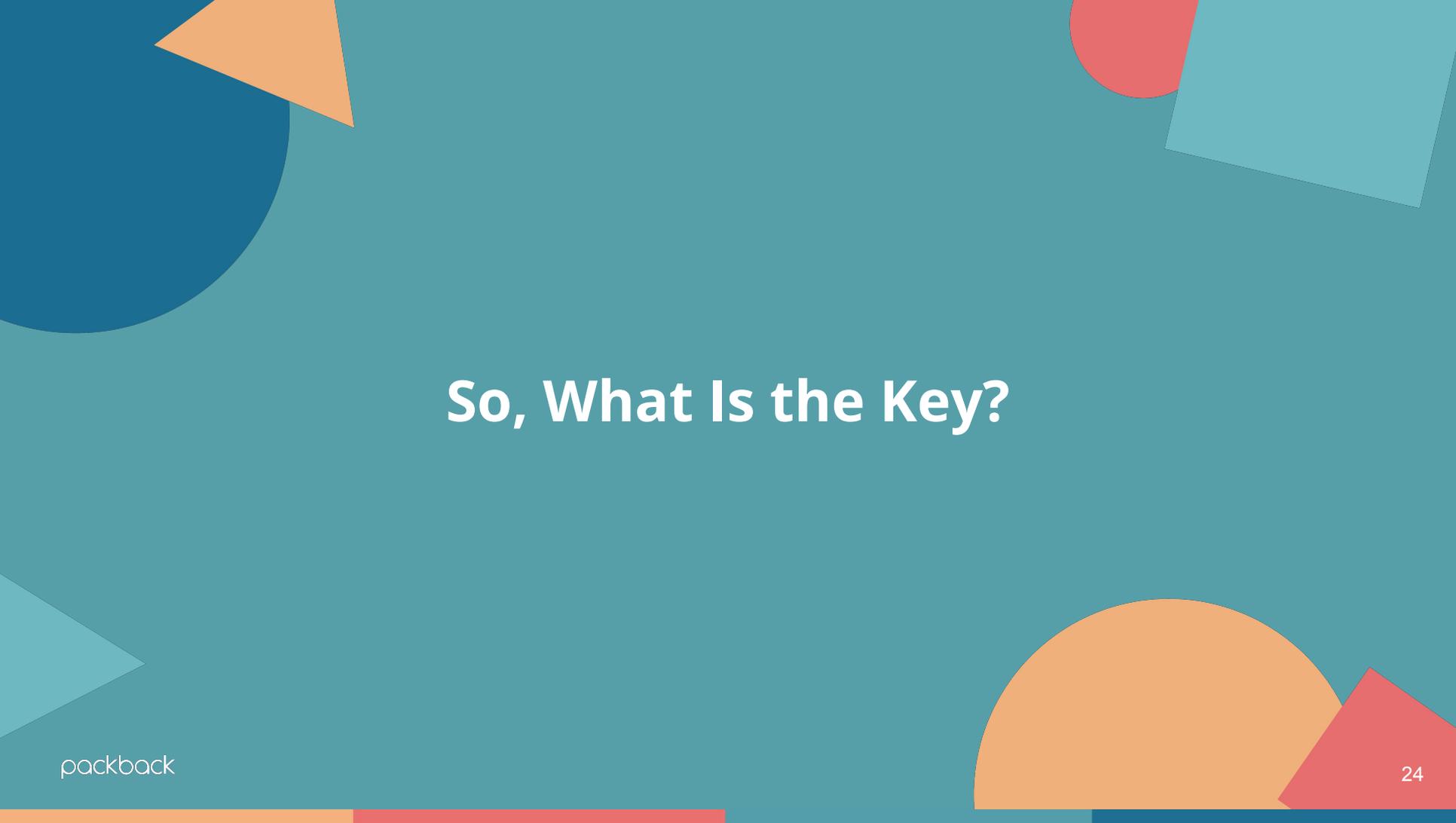
Token Group Work

What it Looks Like

Occasional group projects or forced “turn to your neighbor” activities without clear structure or follow-up.

Why it Doesn't Work

Without intentional design, groups split tasks, go through the motions, and don't achieve the benefits of authentic peer interaction.

The background is a solid teal color. It is decorated with several abstract geometric shapes: a large dark blue circle in the top-left corner, an orange triangle pointing down from the top edge, a red circle in the top-right corner, a light blue square in the top-right corner, a light blue triangle pointing right from the left edge, a large orange semi-circle in the bottom-right corner, and a red triangle pointing up from the bottom edge.

So, What Is the Key?

Belonging and Engagement Drive Student Success

- One of the largest UK studies of student persistence (What Works?)
- Found that belonging and engagement are decisive for retention
- Success is shaped by **academic, cognitive, and social engagement working together**



Teaching Presence Creates the Foundation

- Clear structure and facilitation signal to students that they matter
- Student-centered teaching directly strengthens belonging and persistence
- Departments and programs strongly shape student attitudes and expectations

SYNTHESIS:

When teaching presence is strong, engagement is scaffolded and outcomes improve.

“High quality, student-centred learning and teaching is at the heart of improving the retention and success of all students.”

Social Presence Anchors Belonging

- Peer support and friendship often determine persistence decisions
- Social integration underpins belonging and course engagement
- Strong learning communities close equity gaps for at-risk students

SYNTHESIS:

When students feel connected to peers, engagement turns into persistence and equity gains.

“Friendship and peer support are critical to many students’ decisions to stay in higher education.”

Cognitive Presence

Engagement That Builds Knowledge

- Engagement with meaningful, relevant curriculum fuels persistence
- Active learning methods ignite curiosity and sustain academic momentum
- Inclusive teaching makes learning accessible and motivating for all students

SYNTHESIS:

Deep cognitive engagement keeps students motivated and reduces attrition.

“Engaging students through curricular contents and delivery methods are effective ways of motivating students and improving retention and success.”

Communities of Inquiry

This article lays out a conceptual framework that identifies the **elements** that are crucial prerequisites for a successful higher educational experience.

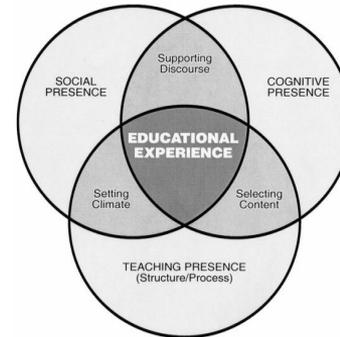
- **Social presence** is “the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment”.
- **Teaching Presence** is the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes.
- **Cognitive Presence** is the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse.

Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education

D. RANDY GARRISON
TERRY ANDERSON
WALTER ARCHER

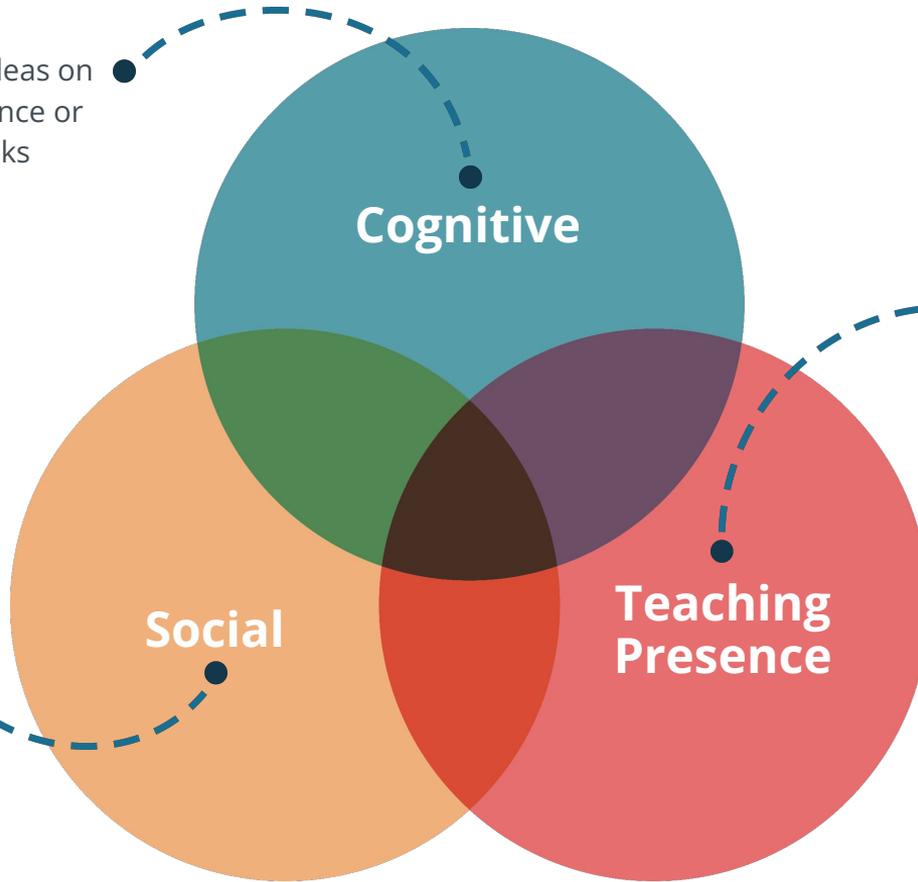
University of Alberta, Edmonton, Alberta, Canada

Community of Inquiry



Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education*, 2(2-3), 87-105.

Students may wrestle with ideas on their own, but without guidance or connection, their learning risks becoming fragmented and discouraging.



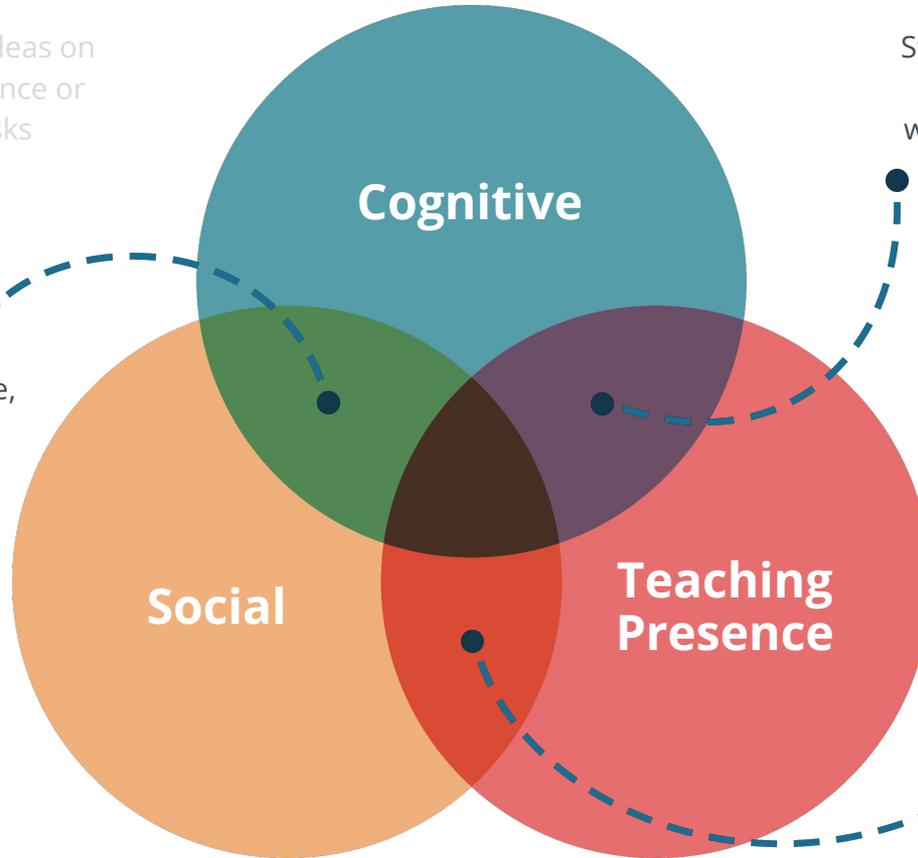
Students feel connected and supported, but without structure or intellectual challenge, the experience becomes community without growth.

The course may be well-organized and content delivered, but without interaction or reflection, students remain passive and disengaged.

Students may wrestle with ideas on their own, but without guidance or connection, their learning risks becoming fragmented and discouraging.

Students may enjoy lively conversation and personal insight, but without guidance, learning lacks structure and academic rigor.

Students feel connected and supported, but without structure or intellectual challenge, the experience becomes community without growth.



Students think deeply and benefit from instructor scaffolding, but without peer connection they risk isolation and are more likely to stop out.

The course may be well-organized and content delivered, but without interaction or reflection, students remain passive and disengaged.

Students feel supported and connected to faculty and peers, but learning remains surface-level without the push toward analysis, reflection, and application.



**The
most
impactful
learning
experiences
integrate all
three**

“What Works?”

Ring 1: In-classroom engagement

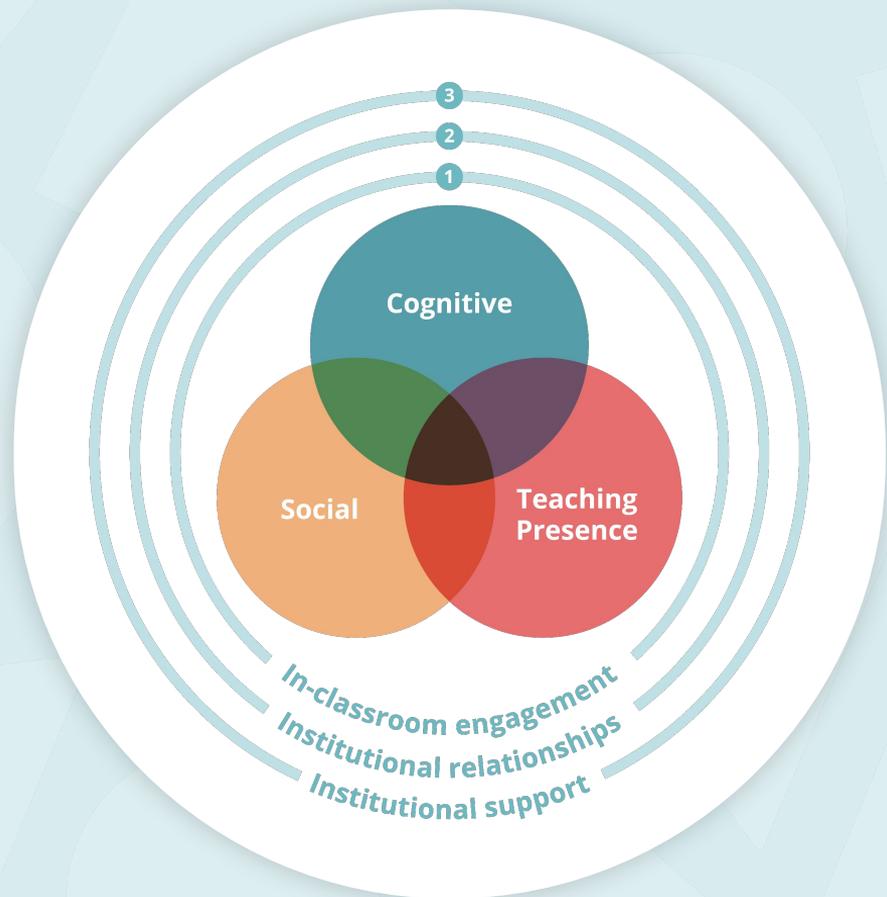
- The academic sphere — learning, teaching, and curriculum.
 - This is where belonging is most powerfully built, because it’s where students spend the majority of their time and where they form their identity as learners.

Ring 2: Institutional relationships

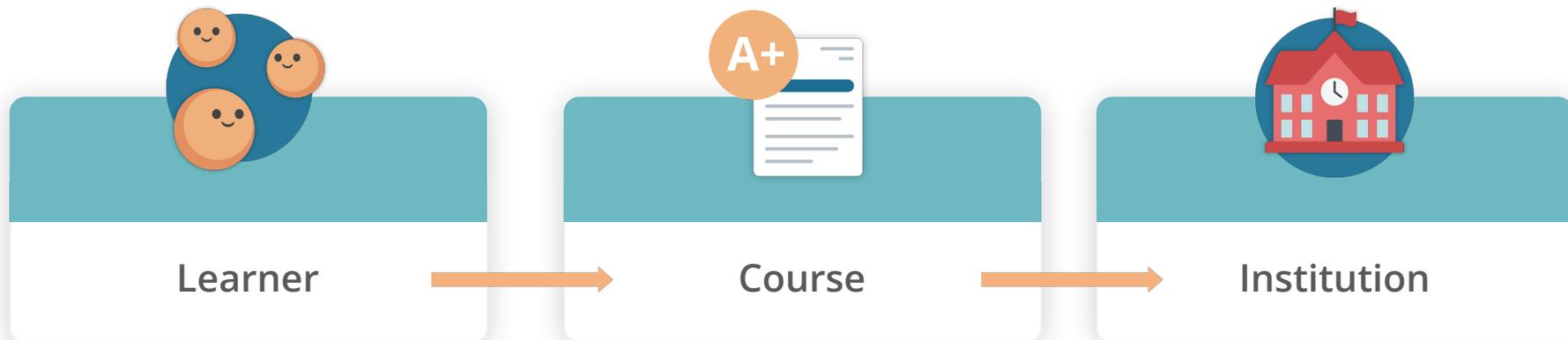
- Relationships and support within the institution.
 - Peer support, staff–student interactions, co-curricular activities.

Ring 3: Institutional support

- Wider institutional and structural support.
 - Services, policies, financial support, accommodation, etc.



From Institutional Impact to Institutional Transformation



We've seen that engagement drives individual outcomes.

Individual outcomes are a lever that can move **institutional outcomes**.

PART 1

Engagement and Outcomes:

The evidence that engagement is the spark

PART 2

Not all Engagement is Equal:

How, when, and where should we focus?

PART 3

Engagement at Scale:

Institutional impact of improving engagement

PART 4

Tools to Increase Engagement:

A six-point guide to driving behavior change

Why Engagement at Scale Matters

In fiscal year 2021, states across the nation collectively allocated more than \$6.7 billion to public colleges and universities based on PBF.

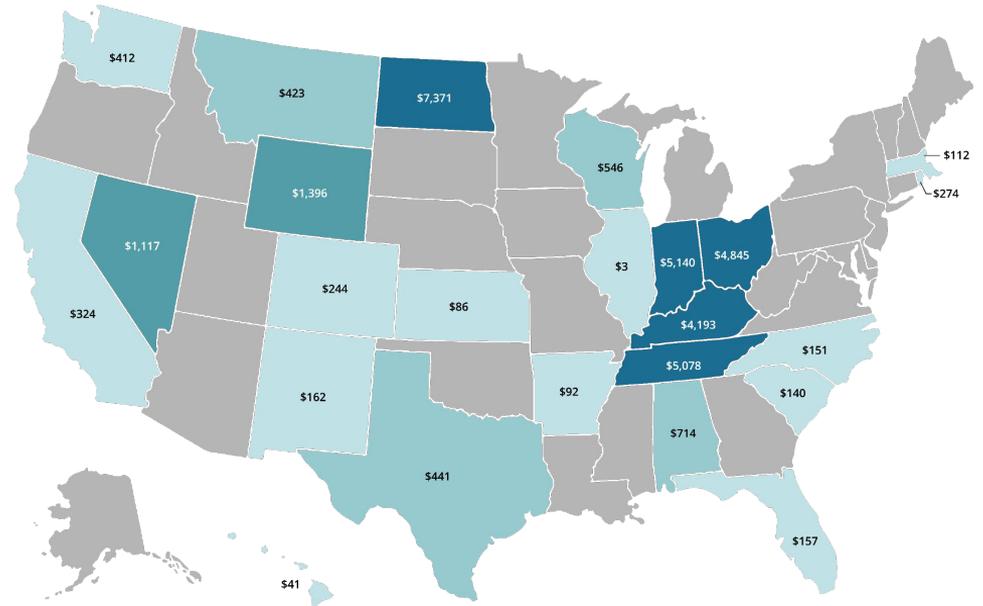
METRICS INCLUDE:

Retention rates & completion rates.



STATE HIGHER EDUCATION EXECUTIVE OFFICERS ASSOCIATION

packback



\$3 \$3,678 \$7,371

TWO-YEAR PBF PER FTE

Small Shifts



Big Returns



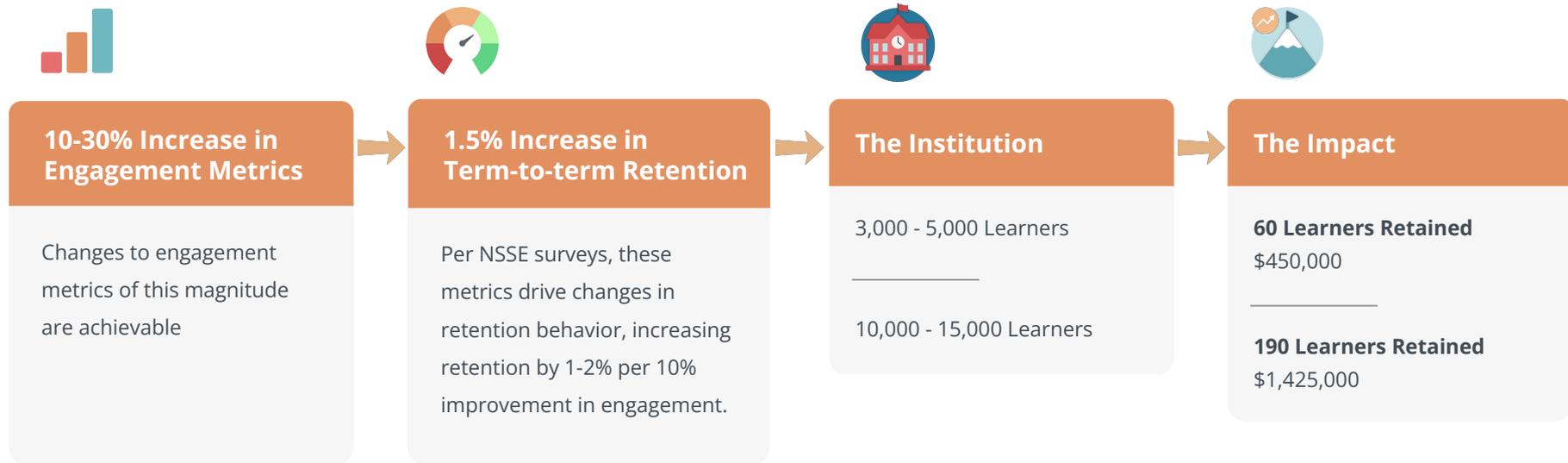
**A 10% lift
in student
engagement
metrics**



**A 1-2%
increase in
retention***

* According to NSSE
and EAB

Retention Gains are Real Gains



Scaling Engagement is a Strategic Imperative

Expanded
Opportunity
to Serve

Resources to
Reinvest

Institutional
Success

Student Success

Engagement

PART 1

Engagement and Outcomes:

The evidence that engagement is the spark

PART 2

Not all Engagement is Equal:

How, when, and where should we focus?

PART 3

Engagement at Scale:

Institutional impact of improving engagement

PART 4

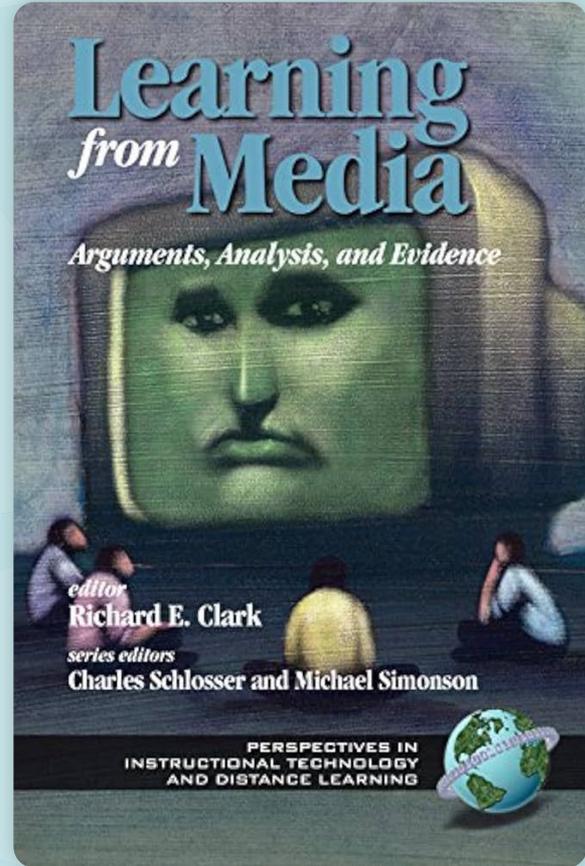
Tools to Increase Engagement:

A six-point guide to driving behavior change

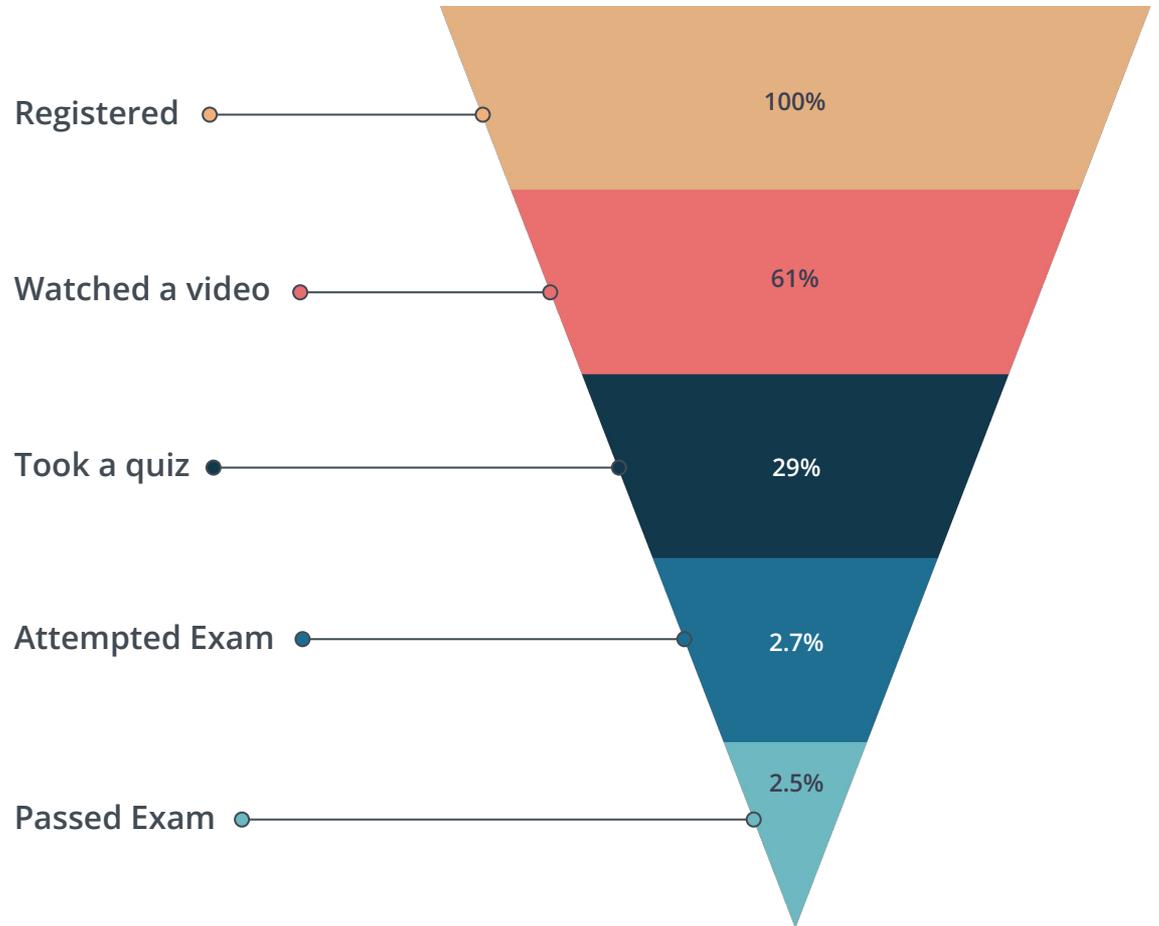
Media are “Mere Vehicles”

“

*The best current evidence is that media are **mere vehicles** that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition. Basically, the choice of vehicle might influence the cost or extent of distributing instruction, but only the content of the vehicle can influence achievement.”*



Media are “Mere Vehicles”



Media are “Mere Vehicles”



Delivery Methods Don't “Fix” Engagement



Duke's bioelectricity course is pretty typical for MOOCs



12,000 students registered, and 313 passed



The Solution: An integrated view of technology



Technology needs to be informed by learning science, delivery isn't enough.



There is a rich literature on technology as behavioral change agent

Designing for Sustained Motivation: A Review of Self-Determination Theory in Behaviour Change Technologies

LIZE ALBERTS, Department of Computer Science, University of Oxford, UK and Department of Philosophy, Stellenbosch University, ZA
ULRIK LYNCS, Department of Computer Science, University of Oxford, UK
KAI LUKOFF, Department of Computer Science and Engineering, Santa Clara University, USA

A teal background with various geometric shapes in orange, red, and light blue. There is a large dark blue circle on the left, a red circle at the top right, a light blue square at the top right, a light blue triangle on the left, a large orange semi-circle at the bottom right, and a red triangle at the bottom right. A horizontal bar at the bottom consists of orange, red, and teal segments.

A six point framework for selecting tools that go beyond mere vehiclehood

Tech is only effective when wrapped around
behavioral design, not vice versa.

Facilitate Scale

Operationalize
Pedagogical
Best Practices

Tools that drive
institutional shifts and
positive outcomes

1

Drive Consistent, Repeated Behaviors

Habits form the foundation of persistence.



Why it matters

Frequency of participation is strongly correlated with retention (Kuh et al., 2008). Learning science shows that “time on task” predicts persistence and mastery.



Implication

Tools must create regular feedback loops, nudges, or structures that make participation habitual; not just a checkbox.



Ask

Does this tool create sustained habits?

One-off activities don't move the needle.

2

Scaffold Deeper Thinking

Reflection and reasoning (not recall) build mastery.



Why it matters

Active learning increases exam performance by +0.47 SD and reduces DFW rates by ~55% (*Freeman et al., 2014*).



Implication

The platform should encourage citation, reflection, metacognition, and elaboration — not superficial responses to prompts.



Ask

How do you push students to explain reasoning, use evidence, or reflect?

3

Foster Authentic Community and Belonging

Connection transforms effort into persistence.



Why it matters

Belonging is one of the strongest predictors of persistence, particularly for first-gen and underrepresented students (*Bettinger et al., 2016*).



Implication

Tools should enable student-led inquiry and real peer interaction, rather than one-way compliance with instructor-posed questions.



Ask

Does this tool help students feel part of the learning community?

Sustainable teaching fuels scalable engagement.



Why it matters

If tools add workload, adoption falters — even if student outcomes improve. Instructor sustainability is key to scaling engagement.



Implication

Platforms must automate mechanical feedback and moderation, while preserving space for personalized, high-value teaching.



Ask

How much time will this save an instructor each week?

Can it automate routine activities?

5

Align with the Science of Learning

Be skeptical of “clicks” and “logins” as success measures.



Why it matters

Clicks, logins, and “minutes active” are not the engagement that drives outcomes (NSSE cautions against over-reliance on shallow metrics).



Implication

Tools should be intentionally designed around the forms of engagement research proves matter most.



Ask

Which evidence-based frameworks is this platform built on?

6

Make Engagement Measurable and Actionable

Engagement data should inform your retention strategy.



Why it matters

Administrators and faculty need visibility into engagement signals to identify at-risk students and evaluate interventions.



Implication

Platforms should surface behavioral/cognitive/social metrics that can tie back to institutional KPIs like retention, GPA, and equity.



Ask

Will this data help us identify at-risk students earlier?

Checklist

- Does this tool create sustained habits?
- How do you push students to explain reasoning, use evidence, or reflect?
- Does this tool help students feel part of the learning community?
- How much time will this save an instructor each week?
- Which evidence-based frameworks is this platform built on?
- Will this data help us identify at-risk students earlier?



Packback

Our comprehensive platform *shortens the distance between action, feedback, and progress*

Every product incorporates key work-flows to create a more engaged learning environment:



Instant Feedback for Students



**Digital Grading Assistance
for Educators***



Academic Integrity Workflows

The Packback Platform

Discussions

*Packback
Questions*

**Originality
and Writing**

*Originality
Fingerprint & Deep
Dives*

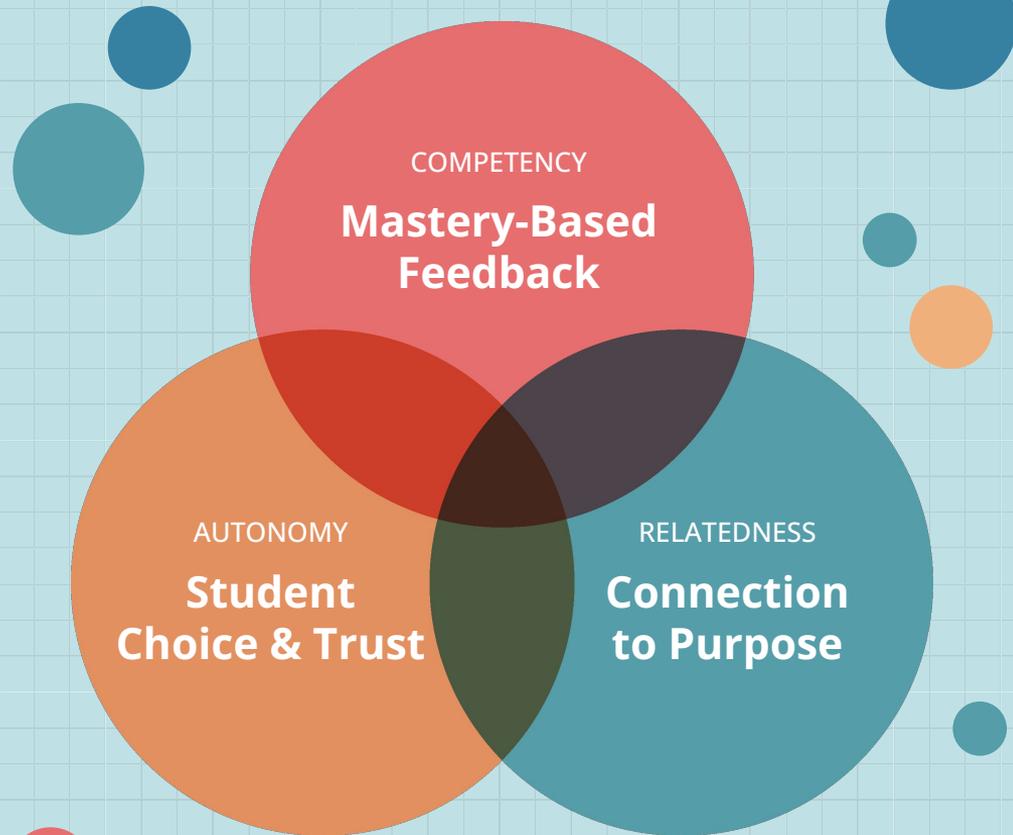
**24/7 Writing
Tutor**

*Packback Writing
Lab*

Writing is an Art. We Bring the *Science*.

Packback's unique, pedagogically-driven feedback tools are deeply rooted in the science of **how humans *want* to learn**.

Based on the psychological framework **Self Determination Theory**, Packback's platform creates the environment necessary to *foster intrinsic motivation*.



Packback lifts **ALL** learners and empowers **ALL** educators

- **Instant feedback for students** *in all courses where writing happens*
- **Grading support for educators**, *allowing them to give feedback on syntax and substance*
- **Hands-on district support** *including professional learning, analytics, and actionable insights*



Ask a New Question

? What is your question?

How does Packback's instant feedback enhance student learning?

☰ Add a Description

Packback's Instant Feedback feature gives students actionable feedback on their writing and inquiry formation as they type. This allows students to have the opportunity to immediately learn from and apply feedback to craft their best question or answer instantly, which which supports Mastery Learning.

Post

Instant Feedback

- ✓ Your question appears open-ended!

89% of instructors are more satisfied with students' writing

55% increase in student confidence in their writing

11% more "A" grades earned by students

30% reduced educator grading time on writing

University of North Texas:

An Independent Research Study on Packback's Impact

Basis of the study

- **A study was conducted over three semesters** to evaluate the effectiveness of Packback on enhancing online discussions
- **UNT analyzed 14,500 posts from over 800 students** to examine how feedback via coaching, public praising, and Packback's AI-assigned curiosity scores impacted student effort and engagement
- **The researchers wanted to know:**
 - Can feedback and AI-scoring *increase student effort and discussion quality?*
 - Will subject matter experts *agree with the judgements of AI-automation?*
 - Can educator engagement in a digital setting *promote student engagement and academic growth?*

The Results



Increase in Student Effort

Packback's Curiosity scores encouraged students to more complete, in-depth discussion questions and answers



Strong Educator and AI Alignment & Trust

Research found that there was a high overlap between posts the AI flagged as high quality and posts the instructors - who are subject matter experts - elected to publicly praise



Educator-Provided Digital Feedback Drives Growth

When students received private coaching, their Curiosity scores significantly increased in their following discussion post by 15 points, with this effect persisting over the student's next several submissions

Checklist

- Does this tool create sustained habits?
- Do you push students to explain reasoning, use evidence, or reflect?
- Does this tool help students feel part of the learning community?
- How much time will this save an instructor each week?
- Which evidence-based frameworks is this platform built on?
- Will this data help us identify at-risk students earlier?

Engagement Insights

Making the invisible parts of writing visible

What You Can Do With Engagement Insights

Promote Academic Integrity

Foster trust between students and instructors by making authentic effort visible, encouraging ownership rather than suspicion.

Enrich Instructional Support

Give educators a clearer context on student effort and writing habits, empowering more personalized, timely, and effective guidance.

Support Critical Thinking

Encourage reflections, revision, and ownership throughout the writing journey.

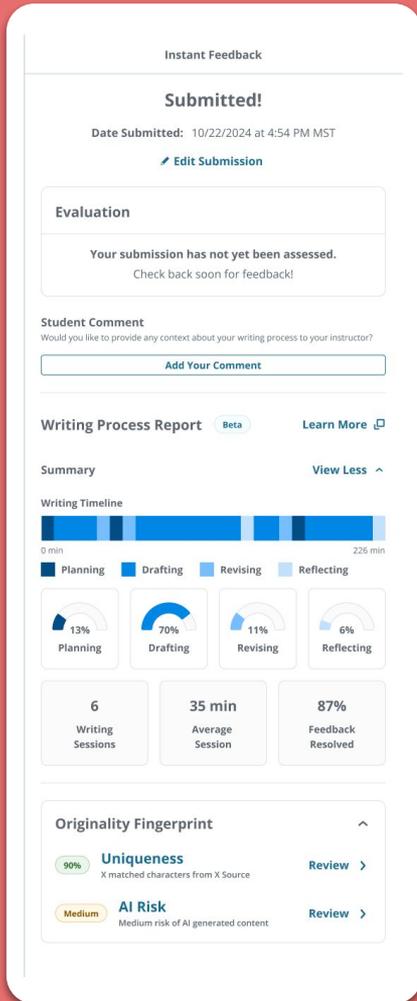
Drive Student Success

Engaged students revise more, write more, and achieve better academic outcomes.

Engagement Insights is a feature set within Packback Writing that provides educators with a clear view into how students engage with writing assignments.

Built on **educational research around metacognition** and self-regulated learning, it captures key behavioral signals across planning, drafting, and reflecting.

By



Key Takeaways

1. The right sort of engagement drives outcomes

- Engagement in the classroom works.
Communities of Inquiry work.

2. Engagement is a powerful lever

- Achievable changes to engagement metrics
and drive meaningful institutional outcomes

3. Under certain circumstances software *can* help drive those engagement changes

- Facilitate scale, operationalize good pedagogy, and free instructors up to do what only humans can do.

Connect with a
Packback Team Member
to Learn More





packback
Fearlessly curious.

