JACKSON STATE UNIVERSITY · FACULTY DEVELOPMENT FOR STUDENT SUCCESS

AI-Resilient Assessment Design

Five patterns that produce trustworthy evidence of student learning — regardless of what tools students can reach.

- Supervised
- Time-Constrained
- Iterative
- Interactional
- Separation

Based on the framework of Dr. Goran Trajkovski · Facilitated by Candis Pizzetta

WHY WE'RE HERE

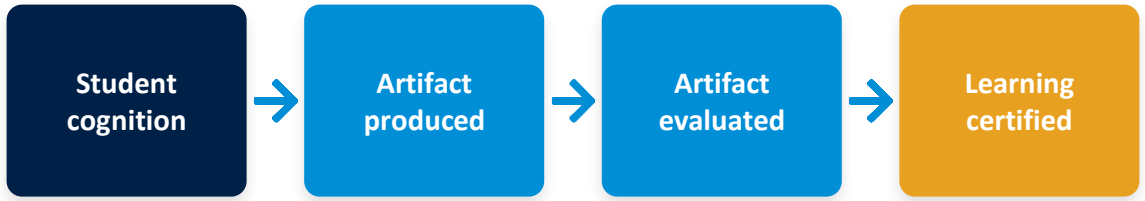
The problem isn't AI. It's the evidence.

Every grade is an inference: the artifact reflects the student's own cognition.

When work is produced unsupervised, that link can no longer be verified — detection tools can't reliably close the gap, and a better-worded prompt just yields a better-worded artifact.

The fix is design, not surveillance: constrain the conditions of production so the artifact requires the student's thinking.

THE INFERENCE CHAIN



Where it breaks

If Link 1 fails, every link after it proceeds on a false foundation. The score is real. The inference is not.

LOOK AT YOUR OWN COURSE

Audit an assessment: three questions

Pick one assessment you give — ideally a high-stakes one. Hold it in mind and ask:

1

Under what conditions is the work produced?

Where are students? What tools can they reach? Is there time pressure? Is anyone observing?

2

What does the artifact actually demonstrate?

What cognitive work does it represent — and which learning outcome is it standing in for?

3

What changes if a student used AI heavily?

Would the work look different? Would you know? Would the learning claim still hold?

Not about guilt. Most of us assign work that was standard long before AI existed. The point is to see clearly where the evidence is strong — and where it rests on an assumption that may no longer hold.

YOUR TURN · THINK – PAIR – SHARE

Run the three questions on one assessment

7 MINUTES

1 **THINK** *3 min, alone*

On your handout, pick one assessment and answer the three questions. Be honest about question 3.

2 **PAIR** *3 min, in your breakout room*

Share your audit with your partner. Where is their evidence resting on trust rather than verification?

3 **SHARE** *1 min*

We'll take a couple out loud — what surprised you?

Keep the assessment you audit — you'll redesign it later in the session.

ONE PRINCIPLE, FIVE MECHANISMS

Constrain the conditions of production so the artifact requires the student's cognitive involvement.

1

Supervised Generation

Physical presence

2

Time-Constrained

Time pressure

3

Iterative Feedback

Accumulated trajectory

4

Interactional Explanation

Real-time interaction

5

Artifact Separation

Structural boundary

No single pattern fits every course. The strategic question is which pattern fits which assessment — matched to its stakes.

PATTERN 1 OF 5

Supervised Generation

Students produce work under direct observation.

HOW IT WORKS

Key evidence is generated where you can see it happen — in-class essays, proctored practicals, lab performances. Delegation is constrained because the student is producing in real time.

IN PRACTICE

A writing course allows AI-assisted drafting all semester, but the primary summative evidence is a supervised in-class essay. A programming course encourages AI pair-coding on homework, then uses a proctored practical exam for the final.

MECHANISM

Physical or virtual presence

EVIDENCE RESILIENCE

●●●●● **Highest**

COST TO IMPLEMENT

Highest — space, staff, scheduling

BEST FOR

Licensure-linked outcomes, capstones, progression gates

PATTERN 2 OF 5

Time-Constrained Tasks

Reasoning under genuine time pressure.

HOW IT WORKS

A tight, authentic window makes wholesale delegation impractical and rewards fluency the student already has. The constraint is the clock, not the room.

IN PRACTICE

A timed in-class analysis of a case students haven't seen before; a 30-minute problem set on novel data; a short synthesis written live from materials covered that week. Fast enough that round-tripping through a tool costs more than it's worth.

MECHANISM

Time pressure

EVIDENCE RESILIENCE

Moderate–High

COST TO IMPLEMENT

Moderate

BEST FOR

Content courses, midterms, scalable knowledge checks

PATTERN 3 OF 5

Iterative Feedback Loops

Multiple submissions create an unfakeable trajectory.

HOW IT WORKS

Evidence is the path, not just the destination: proposal → draft → revision → final, with feedback between stages. A coherent trajectory of growth is far harder to fabricate than a single polished artifact.

IN PRACTICE

A semester research project submitted in four checkpoints, each responding to specific feedback. A clinical course where reflections build on prior entries. The story of the revisions is itself the evidence.

MECHANISM

Accumulated trajectory over time

EVIDENCE RESILIENCE

Moderate–High

COST TO IMPLEMENT

Moderate — more grading volume

BEST FOR

Writing-intensive, project-based, clinical courses

PATTERN 4 OF 5

Interactional Explanation

Real-time dialogue with contingent questions.

HOW IT WORKS

A brief structured oral check verifies the reasoning behind submitted work. Contingent follow-ups — questions that depend on the student's own answers — can't be pre-scripted by a tool.

IN PRACTICE

A 5-minute oral check on a submitted case analysis with three contingent questions. Peer oral questioning from an instructor protocol, with the instructor sampling 8–10 per section. 3-minute Zoom defenses of lab reports in recitation.

MECHANISM

Adaptive, contingent questioning

EVIDENCE RESILIENCE

●●●●● **Very High**

COST TO IMPLEMENT

High — dedicated evaluator time

BEST FOR

Defenses, oral exams, clinical reasoning, capstones

PATTERN 5 OF 5

Artifact Separation

A clear boundary between practice and evidence.

HOW IT WORKS

The course draws an explicit line: practice work where AI is welcome, and evidentiary work where conditions constrain delegation. Students know which is which from day one — which also eliminates most integrity disputes.

IN PRACTICE

AI is encouraged for drafting, brainstorming, and skill-building all term. The two or three assessments that actually count are run under one of the other four patterns. You don't redesign every assignment — only the ones that carry the evidence.

MECHANISM

Explicit practice / evidence boundary

EVIDENCE RESILIENCE

Moderate*

COST TO IMPLEMENT

Lowest — a framing change

BEST FOR

Any course — paired with another pattern

PUTTING IT TOGETHER

Match the pattern to the stakes

Pattern	Resilience	Cost	Best for
1 Supervised Generation	Highest	Highest	Licensure, capstones
2 Time-Constrained	Moderate–High	Moderate	Mid-stakes, scalable
3 Iterative Feedback	Moderate–High	Moderate	Semester projects
4 Interactional Explanation	Very High	High	Capstones, defenses
5 Artifact Separation	Moderate*	Lowest	Large enrollments

Invest where the evidence matters most.

Not every assessment needs the highest rigor. Spend your costliest patterns on your highest-stakes outcomes.

** Artifact separation must be paired with another pattern to constrain delegation on the evidentiary assessment.*

YOUR TURN · WORK ALONE

Fix the assessment you audited

10
MINUTES

1. **Start from your audit** Take the same assessment you ran the three questions on — the one where the evidence felt shaky.
2. **Pick one pattern** Which of the five best repairs that break, given its stakes, your enrollment, and your constraints?
3. **Sketch the change** What shifts? Note the one structural change that moves the evidence.
4. **Name the trade-off** What does this cost — time, space, grading — and is it worth it for this assessment?

It's a sketch, not a finished redesign. We'll pressure-test it in groups next.

BREAKOUT GROUPS

Pressure-test each other's designs

10
MINUTES

IN ZOOM BREAKOUT ROOMS

- Each person gets ~2 minutes: name your assessment, your pattern, your one change.
- Group asks the hard question: where could a student still delegate the thinking?
- Refine on the spot — adjust the pattern or stack a second one to close the gap.

THREE QUESTIONS FOR EVERY DESIGN

1. Does the constraint actually require the student's cognition — or just make delegation slightly harder?
2. Is the cost proportional to what this assessment certifies?
3. If it's separation, what other pattern carries the evidence?

BEFORE YOU LEAVE

One assessment. One pattern. One semester.

That is the ask. Name it before you sign off today.

WHICH assessment

The one you'll rebuild first.

WHICH pattern

Matched to its stakes and your constraints.

BY WHEN

A date you'll have the redesign sketched.

Keep going: the AI Course Advisor for the rest of your assessments · the Canvas module for worked examples and peer discussion · the May design-review consultation.

A TOOL TO KEEP GOING

The JSU AI Course Integration Advisor

Everything you just did by hand — the Advisor helps you do for the rest of your course.

Build a Course Integration Plan

Answer a few questions about your course — discipline, objectives, your biggest AI concern — and get a tailored plan: module recommendations, tool guidance, student prompts, and a critical-thinking safeguard.

Quick plan (5 min) or deep redesign

Upgrade an Existing Assignment

Paste or upload an assignment — even with equations, diagrams, or lab sheets. The Advisor flags where AI could bypass thinking and returns an AI-resilient version with a before/after.

Exactly today's exercise, automated

jsums.edu/scholars/main/faculty-ai-resources/ai-course-integration-advisor/