AI-Based Methods for Effective Teaching and Evaluation

Day 3: Assessment, Ethics & Your AI Action Plan

Faculty Development Program | 3-Day Intensive Workshop

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Can You Spot the AI?

Three paragraphs on the same topic. Two written by humans. One by AI. Type A, B, or C in the chat.

A

Social media's impact on student well-being is honestly hard to pin down. Some of my students seem fine scrolling TikTok between classes, while others tell me it keeps them up at night comparing themselves to influencers.

B

Research indicates that social media platforms exert a multifaceted influence on student well-being, encompassing both positive and negative dimensions. Studies suggest that while social connectivity is enhanced, excessive usage correlates with increased anxiety and diminished academic performance.

C

I deleted Instagram for a month last semester and honestly? I slept better, but I also missed three study group invites and a deadline reminder. Social media is a mess -- useful and toxic at the same time, and I'm not sure anyone has figured out the right balance yet.

The Reveal

Paragraph B was AI-generated!

Key Insight

**If trained professors can't reliably detect AI text,
how can an algorithm?**

The answer isn't better detection -- it's better assessment design.

Our 3-Day Journey

DAY 1

Foundations

AI-Curious → AI-Aware
The landscape, the research, 92% of students using AI, three frameworks, first hands-on experience

DAY 2

Methodology

AI-Aware → AI-Capable
CRAFT for prompts, flipped learning, GEMS for AI-resilient assignments, 7-phase teaching cycle

DAY 3

TODAY

AI-Capable → AI-Ready
Assessment, ethics, and 'What do I actually DO on Monday morning?'

Day 3 Agenda

Session Duration: 60 Minutes

12 min	**Part 1** Reimagining Assessment in the AI Age
13 min	**Part 2** AI-Powered Grading & Feedback
15 min	**Part 3** The Ethics Showdown
20 min	**Part 4** Your AI Action Plan + Workshop

Part 1

Reimagining Assessment in the AI Age

UNESCO's Call: The Assessment Revolution

AI hasn't just created a cheating problem. It has exposed a DESIGN problem.

UNESCO 2025: Shift from measuring rote knowledge to evaluating three core areas:

Critical Thinking

Can students deconstruct AI outputs,
question assumptions, spot errors,
and adapt when evidence contradicts
their position?

Creative Problem-Solving

Can students integrate personal experiences, local contexts, and original synthesis that AI simply cannot replicate?

Ethical Reasoning

Can students use AI tools effectively AND responsibly?
A NEW learning objective that didn't exist five years ago.

If assessments test recall and summary -- AI aces them. If they test these three areas -- students must show up.

The EAT Framework

Rutherford et al., 2025: AI-Enhanced Assessment Values

Equity

AI tools must not widen existing gaps. Account for unequal access -- never require specific paid AI tools. Provide institutional access when AI is required.

Agency

Empower students to make INFORMED choices about how and when to use AI. Teach WHEN it helps, WHEN it hurts, and HOW to use it to deepen -- not replace -- thinking.

Transparency

Clear, mutual disclosure. Faculty disclose when THEY use AI. Students disclose when THEY use AI. Everyone knows who did what. From 'gotcha' policing to professional accountability.

7 Strategies for AI-Resilient Assessment

1

Contextualized Assessments

Require students to connect concepts to THEIR unique experiences, communities, or observations. AI wasn't there.

2

Process-Based Assessment

Evaluate the journey, not just the destination. Require draft submissions, revision logs, and reflection journals.

3

Oral Assessments

Vivas, presentations with live Q&A, Socratic seminars. AI cannot speak for a student in real time.

4

Collaborative Projects

Team projects with individual accountability. Each member must demonstrate their specific contribution AND understanding.

7 Strategies (continued)

5

AI-Integrated Assessments

Don't ban AI -- REQUIRE it. 'Use AI for a first draft, then critically revise. Submit BOTH with annotations explaining every change.'

6

Authentic Problem-Solving

Present real-world, messy problems requiring current data, field observations, or community engagement. Local knowledge AI doesn't have.

7

Portfolio Assessment

Cumulative portfolios showing growth over time. Students include metacognitive reflections on their learning strategies, including AI use.

Strategy 5 is the game-changer: the assessment evaluates critical improvement, not original generation

Quick Check: Rate Your Assessment

Interactive Moment

Think about your most important assessment -- the one worth the most marks.

How many of the 7 strategies does it currently use?

Your target by end of today: at least 4 of 7 strategies in one assessment

The Master Map: EAT + GEMS + 7 Strategies

GEMS Principles	EAT Values	7 Strategies Actions
Ground in context	Equity	Contextualized
Elevate cognitive demands	Agency	Process-Based
Make process visible	Transparency	Oral
Scaffold AI collaboration		Collaborative
		AI-Integrated
		Authentic
		Portfolio

1. Is it EQUITABLE? (EAT) 2. Does it require what AI CANNOT do? (GEMS) 3. Which STRATEGIES apply? (7S)

Assessment Transformation: Before & After

BEFORE

"Write a 2000-word essay analyzing
the impact of social media on youth
mental health in the Gulf region.
Cite at least 8 peer-reviewed sources."

AI does this perfectly in 3 minutes.

Same learning objectives. Same topic.

6 of 7 strategies applied.
AI cannot do this assignment.
But AI HELPS with parts of it --
and the student learns more.

Not AI-proof. AI-enhanced.

AFTER

"Design a mixed-methods research proposal
to investigate social media's impact on
student well-being AT YOUR UNIVERSITY:

1. Interview 5 students on campus
   (Contextualized)
2. Submit two drafts with annotated
   revisions (Process-Based)
3. Use AI for literature review, then
   critically revise (AI-Integrated)
4. Present in a 10-min viva with Q&A
   (Oral)
5. Include AI Collaboration Statement
   (Transparency)
6. Reflect on understanding changes
   (Portfolio element)"

Part 2

AI-Powered Grading & Feedback

The Feedback Crisis

73%

of students say they don't receive feedback quickly enough to improve

2-3 weeks

average feedback turnaround time -- students have moved on

8-12 hrs

average time spent grading per batch of 50 student papers

Key Finding: Wetzler et al., 2024

AI grades MORE LENIENTLY on low-performing work and MORE HARSHLY on high-performing work. It compresses the distribution. AI should SUPPLEMENT your grading, not replace it.

- AI can draft feedback consistently for ALL students -- no fatigue effect
- Two-pass grading (AI first, you second) cuts time by 60-70%
- The golden rule: AI drafts, you decide

5 Best Practices for AI-Assisted Grading

1. Formative First

Use AI for formative, not summative feedback. Draft feedback, practice quizzes, mid-term check-ins. For final grades, always apply human judgment.

2. Two-Pass Grading

AI does the first pass -- grammar, structure, completeness. You do the second pass -- creativity, depth, nuance. Cuts time 60-70%.

3. Detailed Rubrics

If YOU can't follow the rubric consistently, neither can AI. Specific rubric descriptors = better AI feedback.

4. Always Personalize

AI generates first-draft feedback. You add 1-2 sentences SPECIFIC to this student. Best of both worlds.

5. Track Patterns

Use AI analytics to identify which concepts students struggle with most, which criteria score lowest, who's at risk.

AI Assessment Tools Comparison

Tool	Strengths	Limitations	Best For
Gradescope	Auto-groups similar answers; batch grading; handwritten	Needs institutional license; STEM-focused	STEM & large classes
ChatGPT / Claude	Flexible rubric-based grading; detailed narrative feedback	Inconsistent on subjective tasks; needs CRAFT prompting	Feedback drafting; all disciplines
Turnitin AI	Combined plagiarism + AI detection	High false positives for non-native English speakers	Screening only; never for accusations
Notie AI	Evaluates handwritten work from photos	Limited assignment types	Math, science, in-class handwritten work

Recommendation: Start with ChatGPT/Claude for feedback drafting -- you already know CRAFT

The RISE Feedback Framework

Structure AI feedback for genuine pedagogical impact

R

Reflect

Start with what the student did WELL.
Identify 2-3 genuine strengths.
Students are 40% more receptive
when effort is recognized first.

I

Inquire

Ask probing questions, not corrections.
'What evidence supports your claim
in paragraph 3?' Develops
metacognition.

S

Suggest

Provide specific, actionable strategies.
Not 'improve methodology' but
'Add a table comparing qualitative
vs. quantitative methods.'

E

Elevate

Point toward the NEXT level of mastery.
'To move from Proficient to Excellent,
add a critical analysis of your
methodology's limitations.'

Live Demo: The Feedback Face-Off

DEMO

Professor's Midnight Feedback

"Needs improvement. Your methodology justification is weak -- 'easier' is not a valid reason. Add references. Also, 'very important' is vague. Rewrite and resubmit."

3 minutes | Tired professor | Vague feedback

AI + RISE Feedback

R: "Your topic choice shows good instinct..."
I: "What makes qualitative the BEST fit?"
S: "Replace 'very important' with a specific claim citing Creswell, 2024"
E: "Add a comparison of approaches for YOUR research question"

30 seconds | AI + RISE | Pedagogical feedback

AI doesn't replace your expertise. It catches you when you're falling short of your OWN standards.

Live Demo: Rubric Generation

DEMO

How long does it take you to create a detailed rubric from scratch? 2-3 hours?

[C] I teach Research Methodology to graduate students.
Assignment: 3000-word research proposal.

[R] You are an expert in Bloom's-aligned assessment rubric design.

[A] Create a detailed rubric with 5 criteria and 4 performance levels
(Excellent / Proficient / Developing / Insufficient).
Include Bloom's level for each criterion.

[F] Table format. Specific descriptors, not vague labels like 'good analysis.'

Result:

60 seconds | 5 criteria | 4 levels | Bloom's-aligned | Specific descriptors | You refine 15 min

AI Transparency Rubric Component

Add this component to ANY rubric to assess AI use as a learning outcome

Level	AI Interaction	Disclosure	Critical Reflection
Exemplary	Strategic, purposeful AI use that enhances original thinking	Full transparency on all AI interactions including prompts	Deep reflection on AI's contribution and limitations
Proficient	Appropriate AI use with clear human value-add	Adequate disclosure of tools and their role	Thoughtful reflection on AI's role in the work
Developing	Basic AI use with limited original contribution	Partial disclosure of AI tools used	Surface-level reflection on AI interaction
Insufficient	Over-reliance on AI with minimal original thought	No disclosure or misleading claims about AI use	No reflection on AI's role or limitations

Students who use AI WELL get credit. Students who use AI POORLY lose marks -- for failing to think critically.

Part 3

The Ethics Showdown

AI Bias in Education

AI models reflect every historical bias in their training data -- three types matter for education

Language Bias

AI writing tools give systematically lower quality suggestions for non-native English text.

Liang et al. (2024)

Cultural Bias

AI defaults to American examples, Silicon Valley companies, and Western cultural norms unless explicitly prompted otherwise.

Use CRAFT's Context element

Gender & Representation

Significant gender bias in AI-generated educational materials. Business case studies default to male CEOs.

Kotek et al. (2024)

Mitigation: Review all AI outputs through a cultural & equity lens. Use CRAFT's Context element to explicitly request diverse, local, Omani contexts in every prompt.

Privacy & Data Security

Every text you type into an AI tool is processed by an external server.

- **Free tiers may use your conversations for training.**
  If you paste a student's essay into ChatGPT Free, that text could become part of future training data.
- **Anonymize EVERYTHING before pasting into AI.**
  Remove names, student IDs, and personal details. Privacy is non-negotiable.
- **For sensitive content, use AI for STRUCTURE only.**
  Ask for 'a rubric template for a research proposal' -- don't paste your actual exam questions.
- **Inform students when you use AI in assessment.**
  Transparency builds trust. Secrecy destroys it.
- **Consider institutional AI solutions.**
  These typically have better data protection and opt-out agreements.

Bottom line: Use AI thoughtfully. Anonymize data. Be transparent. Read the terms of service.

The AI Detection Myth

Weber-Wulff et al. (2024): Tested 14 AI detection tools across multiple languages and writing styles. A landmark study that every educator should know.

70-80%

Average accuracy

Sounds okay...
until you see the next stat

61%

False positive rate for
non-native English writers

Human text flagged
as AI-generated

<50%

Detection rate for
paraphrased AI text

Lightly edited AI text
evades detection

In a multilingual university like Oman, a 61% false positive rate for non-native speakers is not a hypothetical concern -- it is a certainty that innocent students WILL be falsely flagged.

Design better assessments, don't chase better detectors.

The AI Ethics Court

You Be the Judge!

CASE 1: The Suspicious Essay

A student submits an essay that reads unusually well. You run it through Turnitin's AI detector. It flags 87% AI probability.

The student is a non-native English speaker who has shown steady improvement all semester.

Do you fail the student?

Type in the chat: GUILTY / NOT GUILTY / IT'S COMPLICATED

The AI Ethics Court (continued)

CASE 2: The Policy Gap

You discover that 80% of your class used ChatGPT for a take-home assignment.
Your syllabus says nothing about AI use. Do you punish the students?

Verdict: NOT GUILTY. If your policy was unclear, responsibility is shared. Clarify your policy, then redesign using GEMS.

CASE 3: The Privacy Breach

A colleague tells you, proudly, that they paste ALL student essays into ChatGPT
for grading. Including student names. They don't tell the students.
They say it saves them 8 hours a week. Are they doing the right thing?

Verdict: GUILTY. No student consent. No anonymization. No transparency. Advise: anonymize, inform students, show the workflow.

Tiered AI Permission Levels

Different assignments can have different tiers -- you decide assignment by assignment

Tier 1 **No AI**

AI is not permitted. Assessment FORMAT is your enforcement: in-class writing, oral exams, proctored tests.

Best for: Final exams, certification tests, foundational skills

AI as Research Tool

Students may use AI for brainstorming, finding sources, outlining, and grammar checking. All content by student.

Best for: Research assignments, essays, lab reports

Tier 3 **AI as Co-Author**

Students may use AI to generate drafts. Must substantially revise, add original analysis, and document changes.

Best for: Semester projects, case analyses

Tier 4 **Full AI Collaboration**

AI is fully integrated. Assessed on prompt quality, critical evaluation of AI output, and original value-add.

Best for: Innovation projects, critical AI literacy tasks

AI Policy: 5 Essential Components

1

Position Statement

'This course embraces / permits / restricts AI tools.' Clear, unambiguous.

2

Tier Assignments

Which tier applies to which assessment? Be specific. 'Essays: Tier 3. Final exam: Tier 1.'

3

Disclosure Requirements

AI Collaboration Statement: which tools, which prompts, what accepted/rejected, what added.

4

Consequences

Aligned with institutional academic integrity framework. First offense: warning + consultation.

5

Rationale

TELL STUDENTS WHY. 'This policy teaches you to use AI as a responsible professional.' Students follow policies they understand.

Specificity matters more than strictness

Design, Don't Detect

Approach A: Detect & Punish

- ✗ Invest in detection tools
- ✗ Run every paper through AI detectors
- ✗ Investigate flagged students
- ✗ Build adversarial relationships
- ✗ Accept high false positive rates
- ✗ Watch accuracy degrade with each new AI model

Approach B: Design & Educate

- ✓ Redesign assessments using GEMS + 7 Strategies
- ✓ Make AI use transparent and educational
- ✓ Assess critical engagement with AI
- ✓ Build collaborative, trust-based relationships
- ✓ Develop professionally prepared graduates
- ✓ Future-proof against any new AI model

The research is clear: Approach B wins. Better learning, fewer false accusations, stronger critical thinking.

The Balanced View

Challenges

- Bias in AI-generated content
- Privacy and data security risks
- Academic integrity concerns
- Over-reliance on AI tools
- Equity of access across students

Opportunities

- Personalized learning at scale
- Immediate feedback for all students
- Transparent, consistent assessment
- Critical thinking development
- Teaching responsible AI citizenship

Faculty who engage with AI ethics seriously -- who build thoughtful policies and teach responsible AI use -- provide MORE educational value than those who ignore or ban AI.

You're in this room. You're already leading.

Part 4

Your AI Action Plan

Speed Challenge: Assessment Redesign

ACTIVITY | 5 MINUTES

```
--- ASSESSMENT REDESIGN SPEED CHALLENGE ---
[C] I teach [YOUR COURSE] to [LEVEL] students at a university in Oman.
    My current assessment is: [PASTE YOUR FULL ASSESSMENT].
[R] You are an expert in AI-resilient assessment design using the GEMS
    framework and the 7 Strategies (Contextualized, Process-Based, Oral,
    Collaborative, AI-Integrated, Authentic Problem-Solving, Portfolio).
[A] Redesign this assessment to be AI-resilient. Apply at least 4 of the
    7 strategies. Include an AI Transparency rubric component.
[F] Show: 1. Original  2. Redesigned (with labels)  3. AI Transparency
    Rubric  4. Why this redesign is AI-resilient
[T] Professional, suitable for a university syllabus in Oman.
```

- Open ChatGPT or Claude -- paste your assessment into the template
- If you didn't bring one: 'Write a 2000-word essay comparing qualitative and quantitative research methods'
- Review the output: What would you keep? What would you change?

Workshop: Draft Your AI Policy

ACTIVITY | 3 MINUTES

--- AI POLICY TEMPLATE ---

AI USE POLICY FOR [COURSE NAME]

This course [embraces / permits / restricts] AI tools as follows:

TIERED PERMISSIONS:
- Final Exam: Tier [1/2/3/4] -- [description]
- Major Assignment: Tier [1/2/3/4] -- [description]
- Weekly Work: Tier [1/2/3/4] -- [description]

REQUIRED DISCLOSURE: AI Collaboration Statement with every submission
CONSEQUENCES: Non-disclosure treated as [warning / integrity violation]
RATIONALE: AI tools are essential professional tools. This policy teaches responsible, transparent, critical AI use.

- Copy the template from the chat -- fill in the brackets
- Choose your tiers for each assignment type -- be specific
- Even filling just the Tiered Permissions section is a great start
- This is a professional document you can add to your syllabus this week

Your 30-60-90 Day Roadmap

Days 1-30

Start Small

- Choose ONE course, ONE assessment
- Write your AI policy for the syllabus
- Use RISE feedback for one batch
- Experiment with CRAFT for planning

Days 31-60

Build Confidence

- Design a complete flipped module
- Create a Bloom's-aligned rubric
- Share your AI policy with a colleague
- Try a new AI tool (Gradescope / Notie)

Days 61-90

Lead Change

- Present at a department meeting
- Mentor one colleague starting with AI
- Refine your policy based on experience
- Document your results for sharing

90 days. Not 9 days. Sustainable, gradual transformation. Start Monday.

Your Complete AI Teaching Toolkit

AI Tools

- ChatGPT -- General-purpose, lesson planning, feedback
- Claude -- Nuanced analysis, longer contexts
- NotebookLM -- Research analysis, audio overviews
- Canva -- Visual content with Magic Write
- Gradescope -- STEM grading, batch grading
- Quillionz / Curipod -- Quiz generation

Frameworks

- CRAFT -- Prompt engineering
- GEMS -- AI-resilient assignments
- RISE -- AI feedback structure
- EAT -- Assessment values
- Bloom's + AI -- Human vs. AI focus
- AI-CoACT -- Growth model

Templates You'll Receive

- CRAFT prompt template
- GEMS redesign prompt
- RISE feedback prompt
- Flipped module prompt
- AI Policy Statement template
- Universal Teaching template
- Rubric generation prompt
- Faculty AI Ethics Checklist
- AI Transparency rubric component
- Assessment redesign prompt

What You've Achieved in 3 Days

Day 1 — **AI-Curious → AI-Aware**

Research landscape, 3 frameworks, hands-on with 3 tools

Day 2 — **AI-Aware → AI-Capable**

CRAFT prompts, flipped modules, GEMS assignments, 7-phase cycle

Day 3 — **AI-Capable → AI-Ready**

RISE feedback, ethics framework, AI policy, implementation roadmap

In 3 hours total, you've gone from AI-curious to AI-ready.
That's not a small thing. That's a professional transformation.

Final Reflection

What is ONE thing you will do differently in your NEXT CLASS?

Not five things. Not a complete overhaul. ONE thing.

Type your answer in the chat

Key Takeaways from Day 3

1. AI feedback with RISE saves hours while improving quality
   -- AI drafts, you decide

2. AI detection tools are unreliable and inequitable
   -- design better assessments instead

3. Every course needs a clear AI policy
   -- specificity matters more than strictness

4. GEMS + authentic assessment types make your courses naturally AI-resilient

5. Start small: one prompt, one lesson, one policy
   -- the 30-60-90 roadmap keeps it sustainable

Thank You

AI-Based Methods for Effective Teaching and Evaluation
3-Day Faculty Development Program

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"Keep experimenting. Keep questioning. Keep teaching."

The PROVE Framework: Verifying Understanding

Can your students PROVE they understood -- even with AI help?

P **Process Over Product**

Require drafts, AI chat logs, process reflections.
Grade the journey, not just the destination.

R **Real-Time Defense**

5-min oral viva: 'Walk me through your methodology.'
If they can explain it, they understood it.

O **Original Connections**

Require local context AI can't fake: interviews,
Omani/local company data, field observations.

V **Visible Thinking**

Annotated decisions: 'I chose X over Y because...'
Reflection section on struggles and resolutions.

E **Evolving Evidence**

Portfolios showing growth across weeks.
Compare early thinking to final version.

Don't ask 'Did AI write this?' -- Ask 'Can the student DEFEND this?'

The ADAPT Framework: AI-Integrated Assignment Design

Don't ban AI. Make AI Step 1 of a 5-step assignment.

A — **AI as Starting Point**
Let students use AI for the first draft.
Then the real work begins.

D — **Demand Local Context**
Require what AI can't access: real interviews,
Omani data, personal field observations.

A — **Add Critique Layers**
Students grade the AI output using YOUR rubric.
'Where would AI score Developing? Why?'

P — **Phase the Submission**
4 checkpoints over 4 weeks, not 1 deadline.
Understanding builds in the process.

T — **Test Understanding Live**
5-min viva, peer teaching, or defense panel.
Can they explain it without a screen?

Result: Even if students use AI for 80% of writing, they understand 100% of it

ADAPT Assignment Rubric

Use this rubric for any AI-integrated assignment

ADAPT Criterion	Excellent (4)	Proficient (3)	Developing (2)	Beginning (1)
A: AI Use & Original Contribution	Strategic AI use with significant original value added	Appropriate AI use with clear human contribution	Basic AI use with limited original input	Over-reliance on AI with minimal original thought
D: Local/Personal Context	Deep local context: real interviews, Omani data, field evidence	Good local context with some primary sources	Surface-level local references, mostly generic	No local context; could apply to any country
A: Critical Analysis of AI Output	Identifies AI errors, bias, and gaps with evidence-based fixes	Notes AI limitations and suggests improvements	Mentions AI was used but limited critique	No critical evaluation of AI output
P: Process Documentation	Complete drafts, AI logs, annotations showing evolution	Multiple drafts with some annotations of changes	Final draft only with brief process note	Single submission, no process evidence
T: Live Defense	Explains all aspects confidently, answers follow-ups with depth	Explains main points well, handles most questions	Can explain some parts but struggles with details	Cannot explain own submission without notes

Scoring: 18-20 = Excellent | 14-17 = Proficient | 10-13 = Developing | 5-9 = Needs Revision

Quick Recipe: ADAPT Any Assignment in 10 Minutes

Take any existing assignment and transform it with these 5 additions:

1. Keep your topic & learning objectives the same
2. Add: "Use AI to create a first draft" (this is now Step 1 of the assignment)
3. Add: "Include [local element] that AI cannot generate" (interview, Omani data, site visit)
4. Add: "Annotate 3 places where you improved AI's output and explain why"
5. Split into 2-3 checkpoints instead of one deadline
6. Add: "5-minute oral explanation in class"

Even if students use AI for 80% of writing, they understand 100% of it.