IDEAL

Integrating Data Analysis and AI in Learning Experiences

D2.4

Activity 2 (Result 4)

REPOSITORY OF ASSESSMENT METHODS

Evaluating AI Teaching Competences in Higher Education: The Imperative for Structured Assessment Tools

Work Package 2: Use case Inventory for AI and Data Analysis in Higher Education and Competence Framework

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Executive Summary

The report "Evaluating AI Teaching Competences in Higher Education: The Imperative for Structured Assessment Tools" represents a major contribution to the IDEAL project's goal of fostering AI readiness in higher education teaching staff. It addresses a pressing gap: while competence frameworks for AI use in higher education exist (e.g., DigCompEdu), structured and context-sensitive assessment tools to evaluate these competences are severely lacking. This absence risks superficial, inequitable, and uncritical adoption of AI technologies in academic environments.

The IDEAL Project proposes that assessment should not be viewed as a bureaucratic exercise but as a developmental process that nurtures pedagogical, ethical, and professional growth. The report structures its argument around four interconnected domains of AI teaching competence: Pedagogical-AI Integration; AI-Enhanced Curriculum Design and Assessment; Ethical, Inclusive, and Data-Literate AI Use; and AI-Driven Professional Development and Collaboration. For each domain, the report highlights why assessment is imperative—to avoid technocratic, shallow adoption of AI—and how its absence poses serious institutional and pedagogical risks. It proposes a set of five core principles for designing meaningful assessments: they must be developmental (not binary), context-sensitive, multi-modal, participatory, and embedded institutionally without falling into bureaucratic rituals. Practically, the report offers an extensive repository of over 80 tailored assessment tools, providing narrative descriptions, examples, and rubric criteria for each. These tools range from microteaching demonstrations and AI-enhanced lesson design tasks, to algorithmic bias investigations and reflective ethics diaries. This resource equips institutions and educators with flexible strategies to evaluate not only technical proficiency but also ethical judgment, pedagogical intentionality, and inclusive practice in AI-enhanced teaching. Strategically, the report argues that structured assessment is a critical infrastructure for ensuring that AI integration in higher education aligns with principles of equity, responsibility, and reflective practice—and not just technological enthusiasm. European higher education institutions, given existing frameworks and strategies (e.g., DigCompEdu, European Strategy for Universities, UNESCO AI Competency Framework), are uniquely positioned to lead globally—provided they move beyond mere definition of competences to measurement and development.

Ultimately, the report contends that the most radical and necessary act for AI readiness is to assess values, not just skills. Assessment frameworks must cultivate teaching staff capable of shaping AI for human-centered learning, rather than being shaped by opaque technological systems. The IDEAL project's contribution is both timely and foundational: it proposes assessment not as surveillance, but as stewardship of educational futures.

Introduction and Rationale: Why AI Teaching Competences Must Be Assessed

The rapid expansion of AI systems in higher education—from automated feedback mechanisms and intelligent tutoring to predictive analytics and generative tools—has reshaped what it means to teach, assess, and support students. As institutions adopt AI-enhanced platforms, the assumption that HE teaching staff will "naturally" adapt to these tools has proven unfounded. Instead, HE teaching staff are frequently positioned as passive users of opaque systems, lacking the support or frameworks to critically evaluate, integrate, or challenge them (Williamson & Eynon, 2020; Zawacki-Richter et al., 2019).

In response, numerous frameworks have been proposed to define what AI competence entails for HE teaching staff. Among the most influential in Europe is the European Framework for the Digital Competence of HE teaching staff (DigCompEdu), which identifies digital teaching capacities, including the ethical and pedagogical use of emerging technologies (Redecker, 2017). However, while such frameworks provide conceptual grounding, they rarely include robust assessment instruments. This is a major limitation.

Assessment is not simply an endpoint that validates competence—it is a process that develops it (Black & Wiliam, 2009). Carefully designed, contextually embedded assessment tools support formative reflection, instructional alignment, and ethical discernment. Conversely, the absence of assessment can entrench superficial use, reproduce inequalities, and inhibit professional growth.

This project result structures its analysis around the four-part AI teaching competence model. For each domain, we identify the core rationale for competence assessment and describe the institutional and pedagogical risks of leaving it unmeasured. We argue that targeted assessment tools are essential infrastructure for responsible, scalable, and inclusive AI integration in higher education.

An Integrative Framework: Principles for AI Teaching Competence Assessment

Across the four domains—pedagogical integration, curriculum design, ethical inclusion, and professional innovation—there is a clear case for structured, rigorous, and developmentally oriented assessment tools. Yet to avoid technocratic traps, assessment practices must be guided by core design principles.

Based on this analysis, we propose the following five principles for AI teaching competence assessment in higher education:

1. Developmental, Not Binary

Assessment tools should reflect learning trajectories, not fixed outcomes. Frameworks should recognize movement from "perceiving" to "transferring" (skills), and from "know that" to "know where else" (knowledge), allowing HE teaching staff to self-locate and grow (Eraut, 1994; Dreyfus & Dreyfus, 1986).

2. Context-Sensitive and Situated

Assessment must be adaptable to discipline, pedagogy, and institutional culture. AI use in engineering differs from that in literary studies, just as inclusion priorities differ across global North/South contexts. Tools must be locally relevant while anchored in transferable principles (Laurillard, 2012; Selwyn, 2022).

3. Multi-Modal and Reflective

Traditional tests or surveys are insufficient. Assessment must include reflective writing, collaborative tasks, design pitches, role-play, and self-assessment—formats that surface values, ethical dilemmas, and real-life constraints (Brookfield, 2017; Shulman, 2005).

4. Participatory and Relational

Students, peers, and support staff should be engaged in the assessment of teaching competences, especially in ethics and inclusion domains. Co-assessment and feedback loops reflect the intersubjective nature of AI teaching (Fawns et al., 2022; Bali & Caines, 2018).

5. Institutionalized Without Bureaucratization

Finally, assessment must be embedded in institutional CPD, QA, and recognition systems—yet without reducing competence to checkbox compliance. This requires resourcing, policy alignment, and sustained leadership (European Commission, 2022; UNESCO, 2021).

These principles help ensure that assessment contributes to AI readiness as a culture, not just a metric.

Strategic Implications for Higher Education Policy

The rapid proliferation of AI technologies in higher education represents both a profound challenge and an unprecedented opportunity. At the heart of this transition lies a critical question: not just what technologies institutions adopt, but how HE teaching staff are supported and held accountable in using them pedagogically, ethically, and inclusively.

This project result demonstrates that robust, domain-specific assessment tools are indispensable in developing AI teaching competences. Without such tools, higher education risks normalizing superficial, inequitable, and uncritical uses of AI—often under the guise of "innovation." With them, institutions can foster a generation of reflective, collaborative, and ethically grounded HE teaching staff who are equipped not just to use AI, but to shape its educational future.

European higher education is uniquely positioned to lead in this domain. The presence of frameworks like DigCompEdu, the European Strategy for Universities (European Commission, 2022), and the UNESCO AI Competency Framework provide fertile ground for integrating competence assessment into national and institutional strategies. However, most initiatives to date have focused on defining competences—not measuring them.

This next phase requires:

- Investment in the co-development of assessment tools with HE teaching staff, students, and technologists.
- Integration of AI competence assessment into quality assurance, faculty development, and promotion criteria.
- Recognition of the diversity of teaching contexts and the need for multilingual, interdisciplinary, and culturally sensitive assessment formats.
- Support for peer-driven and dialogic models of professional learning, where assessment is not surveillance, but stewardship.

Assessment, in this context, is not about sorting good teachers from bad—it is about ensuring that all teachers are equipped to act responsibly in AI-mediated learning environments, and that institutional structures recognize, reward, and resource this ongoing journey. In an era where algorithms shape attention, feedback, and opportunity, the most radical act of educational leadership may be to assess—not performance—but values. And through those assessments, to create a culture where AI serves pedagogy, and not the other way around.

As artificial intelligence (AI) becomes an integral component of higher education, the pedagogical, ethical, and strategic capacity of academic staff to teach with and about AI must be systematically assessed. This paper argues for the development and application of robust, context-sensitive assessment tools across four interrelated domains of AI teaching competence: Pedagogical-AI Integration; AI-Enhanced Curriculum Design and Assessment; Ethical, Inclusive, and Data-Literate AI Use; and AI-Driven Professional Development and Collaboration. Drawing on European frameworks (e.g., DigCompEdu), current scholarship, and practice-based insights, the paper outlines how tailored assessment can drive sustainable, inclusive, and reflective educational innovation. Without such tools, the promise of AI in teaching is undermined by inconsistency, exclusion, and pedagogical superficiality. With them, institutions can foster a critically literate and ethically grounded AI teaching culture.

The IDEAL Competence Framework is complemented with the most pertinent assessment approaches for evaluating the development of digital data competences.
More specifically, there are four types of competences identified in the IDEAL project:
Type 1: Pedagogical-AI Integration Competences. How HE teaching staff integrate AI meaningfully into inclusive and accessible teaching practices
Type 2: AI-Enhanced Curriculum Design and Assessment Competences. How HE teaching staff design courses, materials, and assessments with the support of AI for diverse learners
Type 3: Ethical, Inclusive, and Data-Literate AI Use Competences. How HE teaching staff engage with ethical, inclusive, and data-conscious practices in AI-supported environments
Type 4: AI-Driven Professional Development and Collaboration Competences. How HE teaching staff use AI to develop professionally, collaborate, and enhance institutional practices
For each of these types of competences we have developed different assessment tools that are presented in the following sections.

1. Pedagogical-AI Integration: Assessment for Intentionality and Agency

Pedagogical-AI integration competences refer to the HE teaching staff's ability to understand the potential of AI in teaching and to integrate it purposefully into learning activities, instruction, and interaction. These competences are foundational because they shape how AI tools are interpreted, selected, and enacted within the learning environment (Luckin et al., 2016).

1.1 Why Assessment Tools Are Needed

Assessment tools in this domain are vital for three main reasons:

1. They cultivate pedagogical intentionality. In the absence of critical guidance, AI tools risk being used merely for convenience or novelty. For example, an HE teaching staff might deploy an automated feedback tool without understanding its alignment with formative assessment principles. Competence assessment tools—such as pedagogical alignment audits or reflection-based design rubrics—encourage HE teaching staff to evaluate AI use in terms of learning outcomes and learner diversity (Biggs & Tang, 2011).
2. They reveal gaps between tool potential and teaching design. A recent Erasmus+ project (TEFCE, 2022) on AI in European universities found that many HE teaching staff adopted AI tools without clear understanding of their instructional affordances. Assessment activities such as scenario-based analysis or reflective microteaching review can uncover such gaps and prompt recalibration.

3. They support differentiated growth. HE teaching staff vary significantly in their digital and pedagogical confidence. Competence rubrics aligned with DigCompEdu (Redecker, 2017) and scaffolded around progressive levels (e.g., "know that" to "know where else") help institutions tailor support while recognizing professional development as non-linear and diverse.

1.2 Risks of Non-Assessment

Without assessment, pedagogical-AI integration risks becoming mechanistic, superficial, or exclusionary. It can reinforce existing digital divides, reward speed over substance, and disconnect technological experimentation from pedagogical grounding (Selwyn, 2019).
Moreover, institutions risk promoting innovation without reflection—encouraging AI uptake without mechanisms to detect unintended effects on students, especially those from marginalized or under-supported groups (Smith et al., 2021).
In this light, the development of formative, discipline-sensitive assessment tools becomes a matter of academic integrity and inclusive innovation.

1.3 Assessment tools

For *Type 1: Pedagogical-AI Integration Competences*, which include competences related to personalization, adaptability, differentiation, accessibility, and learning process support using AI tools, each assessment method is presented below with a short word narrative description, followed by a practical example and rubric elements. In total 20 assessment tools are proposed. More specifically:

1. AI-Enhanced Lesson Design Task

This assessment method asks HE teaching staff to design a detailed lesson or learning sequence that meaningfully integrates one or more AI tools to personalize learning, differentiate instruction, or scaffold diverse learner needs. The focus is not on technical perfection but on pedagogical intentionality: how AI is embedded to serve instructional goals and learner diversity. HE teaching staff submit a lesson plan that explicitly articulates the role of AI in content delivery, assessment, feedback, or support.
A strong assessment emphasizes inclusive instructional strategies and clearly links tool functionality with specific learner needs (e.g., using AI speech-to-text tools for language learners, or predictive feedback for at-risk students). The HE teaching staff must justify tool selection based on learning objectives and student context.

Example rubric criteria:

- Alignment with learner needs: AI use is clearly connected to specific learner profiles or challenges.
- Intentionality: AI is embedded with clear purpose, not as novelty or add-on.
- Inclusivity: Accessibility and equitable impact are considered in the design.
- Reflection: Rationale shows awareness of risks, biases, or limits of AI use.

Example: An HE teaching staff designs a unit on academic writing using an AI grammar tool (like Grammarly). The lesson includes differentiated support paths: native speakers use it for tone refinement; multilingual students receive extra guidance on vocabulary suggestions. The HE teaching staff also integrates an activity where students critique the tool's feedback, discussing potential cultural or linguistic biases. A reflection explains how this integration promotes learner agency while maintaining academic integrity.

2. Microteaching Demonstration with AI Integration

In this method, HE teaching staff conduct a short teaching segment (5–10 minutes) integrating AI tools in real-time or through simulation. It may involve a chatbot, adaptive platform, predictive analytics dashboard, or feedback automation tool. The session is recorded or observed, followed by structured feedback from peers or facilitators. This form of performance-based assessment is valuable because it exposes real challenges in pacing, student interaction, tool management, and pedagogical decision-making. It emphasizes how well HE teaching staff can translate theoretical AI knowledge into practice. After the demonstration, HE teaching staff complete a self-evaluation and receive rubric-based peer feedback. They may be asked to revise their approach based on insights gained.

Example rubric criteria:

- Clarity of purpose: Why and how the AI tool was used is evident.
- Pedagogical fluency: HE teaching staff adapts instruction in response to AI tool output.
- Student engagement: AI enhances learner interaction or feedback.
- Ethical awareness: HE teaching staff anticipates or mitigates issues of access or fairness.

Example: An HE teaching staff simulates an online class using a generative AI discussion prompt tool. They demonstrate how to frame student prompts to avoid superficial answers, and how to moderate AI-enhanced discussions to deepen critical thinking. They reflect on what went well and what risks emerged, such as students over-relying on AI suggestions or copy-pasting outputs.

3. AI Tool Evaluation Portfolio

HE teaching staff are asked to select, explore, and evaluate three or more AI tools that can be used in higher education for instructional purposes. For each tool, they must document its functionality, pedagogical potential, accessibility, risks, and alignment with specific teaching contexts. This task blends analytical skills with pedagogical imagination.

This portfolio should include:

1. Tool description and usage
2. Strengths and limitations for teaching and learning
3. Ethical or inclusion concerns
4. Reflections on trial use or hypothetical integration

The strength of this method lies in its longitudinal, reflective quality. It encourages HE teaching staff to move beyond surface-level reactions and develop a nuanced understanding of tools over time.

Example rubric criteria:

- Depth of analysis: Evaluation goes beyond pros/cons and includes use cases.
- Pedagogical insight: Tools are assessed in relation to specific learner tasks.
- Inclusion focus: Accessibility and potential for bias are critically examined.
- Reflection quality: HE teaching staff explores evolving impressions and reservations.

Example: An HE teaching staff reviews an AI-powered flashcard tool, a generative image explainer for science education, and a feedback chatbot. They highlight how the chatbot can scaffold shy students' questions, but also note concerns about accuracy and bias in generated responses. The portfolio includes screenshots, learner personas, and reflections on ethical guardrails.

4. Adaptive Scenario Design and Critique

In this method, HE teaching staff create branching instructional scenarios that simulate learner interactions with AI-driven adaptive systems. They design how AI would respond at each point (e.g., if a student struggles with a concept), and they must justify each response path in pedagogical terms. This method emphasizes decision-making and foresight in AI-supported learning.
HE teaching staff may also be given a flawed adaptive scenario and asked to critique it for inclusiveness, bias, overfitting, or misalignment with learning goals.

Example rubric criteria:

- Responsiveness: Scenarios accommodate diverse learner inputs or needs.
- Instructional logic: AI feedback paths reflect valid pedagogical strategies.
- Risk identification: Possible unintended consequences are acknowledged.
- Creativity and realism: Scenarios reflect plausible teaching environments.

Example: An HE teaching staff designs a quiz on research methods using an AI tool that gives personalized feedback based on student responses. One path supports students who repeatedly miss questions with scaffolded examples; another invites students to generate their own summaries. The HE teaching staff reflects on how this builds metacognition but notes that struggling students might still feel discouraged if the feedback becomes too automated.

5. Pedagogical Dialogue Analysis

This assessment method involves HE teaching staff recording or simulating an AI-enhanced learning dialogue—such as an exchange between a student and an AI feedback agent, or a human-led tutorial supported by AI analytics—and then analyzing the pedagogical implications.
The analysis should address:

1. Who drives the interaction (student, teacher, AI)?
2. How transparent is the AI's role?
3. Does the AI facilitate or hinder deeper learning?
4. Are student voices amplified or flattened?

This method sharpens ethical and relational reflexes, especially when assessing how AI shapes learner agency.

Example rubric criteria:

- Dialogic balance: AI is used to support—not replace—HE teaching staff-learner exchange.
- Learner empowerment: Student voice and autonomy are preserved.
- Feedback analysis: Quality, tone, and usefulness of AI feedback are critiqued.
- Inclusion: The dialogue is accessible and appropriate for all learners.

Example: An HE teaching staff critiques a transcript from a student's interaction with an AI essay grader. They note that the AI emphasizes grammar over argument quality and risks reinforcing formulaic writing. They propose ways to blend AI input with instructor dialogue and emphasize peer feedback.

6. Instructional Redesign Commentary

This method requires HE teaching staff to revise an existing lesson or course component to incorporate AI in a way that enhances personalization, differentiation, or process-based support. Importantly, the original version must be presented alongside the revised one, with an analytical commentary explaining the rationale for the changes.
The HE teaching staff should explain:

1. What prompted the redesign (e.g., student needs, scale, feedback issues)
2. Why the chosen AI tool was selected
3. How the redesign promotes equity, engagement, or deeper learning
4. What trade-offs or concerns arose in the process

This method emphasizes transformation over creation and supports HE teaching staff who are adapting legacy materials to current realities.

Example rubric criteria:

- Transformation clarity: Clear shift from traditional to AI-enhanced design
- Rationale strength: Pedagogical and ethical reasoning is evident
- Student impact: Redesign addresses specific learner variability
- Risk-awareness: Redesign accounts for AI limitations or exclusions

Example: A lecturer revises a statistics lecture by embedding an AI tutoring bot that answers formula-related questions. In the commentary, they explain how student performance analytics showed disengagement during formula-heavy segments. The bot is configured to detect hesitation and offer progressively simplified examples. The HE teaching staff notes concerns about bot overuse and integrates periodic human check-ins.

7. AI Usage Reflection Diary (Focused on Pedagogical Fit)

In this longitudinal method, HE teaching staff maintain a reflective diary over several weeks during which they trial AI tools in their practice. The focus is not on the tools themselves, but on the evolving pedagogical relationship: How does the tool support or reshape their teaching? What challenges emerge in terms of control, student response, or accessibility?
Entries can be guided by prompts, such as:

1. "Describe how AI helped—or hindered—learner engagement this week."
2. "Reflect on a moment when the AI feedback conflicted with your judgment."
3. "What surprised you about student reactions to this AI-supported task?"

This method supports deep metacognition and ethical reflection on pedagogical agency in the AI context.

Example rubric criteria:

- Depth of reflection: Goes beyond description to analyze tension and values
- Pedagogical focus: Entries relate AI use to teaching quality, not convenience
- Evolution over time: Shows adaptation, learning, or principled rejection
- Learner perspective: Considers student response and inclusion

Example: Over four weeks, a professor journals on using an AI writing assistant. Initial entries show enthusiasm; later ones express concern about students mimicking AI tone. By week four, they redesign

their instructions to emphasize human-AI collaboration and require peer feedback before AI input. This journey becomes evidence of critical growth.

8. Inclusive AI Tool Configuration Exercise

HE teaching staff are given an AI tool (e.g., adaptive quiz platform, voice generator, analytics dashboard) and tasked with configuring it for a diverse classroom. They must identify settings, default assumptions, or outputs that could pose challenges for learners with different linguistic, cognitive, or technological profiles—and adapt the tool accordingly.
They submit:

1. A configuration plan (screenshots or descriptions)
2. A justification memo explaining decisions made
3. Optional: simulated outputs showing the effects of changes

This method assesses not just tool use, but the HE teaching staff's capacity to anticipate learner needs and design AI use around accessibility and inclusion.

Example rubric criteria:

- Bias identification: Tool defaults are critically assessed
- Config rationale: Adjustments are pedagogically and ethically grounded
- User-centeredness: Design choices reflect real student differences
- Clarity and replicability: Setup could be reused by others

Example: An HE teaching staff configures a speech synthesis tool to narrate biology content. They discover the default English voice mispronounces scientific terms and lacks emotion. They select a more expressive voice, slow the pace, and test it with multilingual students. Their memo explains how this improves cognitive processing and engagement.

9. Pedagogical Use Case Repository (Curated Submissions)

HE teaching staff are tasked with contributing to a shared repository of short pedagogical use cases for AI integration. Each submission includes:

1. A teaching context (discipline, learner type)
2. An AI tool or feature
3. A specific instructional goal (e.g., feedback, engagement, adaptation)
4. A description of how the tool was or could be used
5. A short reflection on benefits, risks, and required supports

This method emphasizes knowledge sharing and collective intelligence while assessing HE teaching staff' capacity to contextualize AI use appropriately.

Example rubric criteria:

- Clarity of case: Scenario is well-framed and relevant
- Instructional value: AI use clearly supports a learning objective
- Transferability: Others could adapt the idea easily
- Critical awareness: Submission includes limitations or improvements

Example: A chemistry instructor submits a use case describing how an AI problem generator helped students practice stoichiometry problems at their own pace. They note that the tool initially confused weaker students by using too much jargon, so they scaffolded with instructor-created help videos and FAQs.

10. Peer Feedback Simulation with AI Integration

In this assessment, HE teaching staff simulate or facilitate a peer feedback session in which AI tools (e.g., automated writing evaluators, code correctness checkers, peer grading platforms) play a mediating role. The HE teaching staff must:

1. Design the activity
2. Explain how students are prepared to interpret AI-generated input
3. Provide guidelines to ensure fairness, transparency, and student agency
4. Reflect on possible learner reactions and alternatives

This method targets fine-grained pedagogical design: how AI changes student-student dynamics and feedback cultures.

Example rubric criteria:

- Design quality: Structure enables meaningful peer interaction
- AI scaffolding: AI input is framed and contextualized clearly
- Equity measures: Design includes safeguards for misunderstandings or over-reliance
- Reflection depth: HE teaching staff anticipates classroom dynamics, not just tool output

Example: A writing instructor creates a peer review activity where students use an AI tool to receive grammar suggestions before giving feedback to each other. The instructor prepares students to question the AI's suggestions, not just accept them. They reflect on how some learners felt empowered, while others deferred too much to the tool.

11. AI Personalization Audit

This assessment method tasks HE teaching staff with auditing an AI-based tool or platform to determine the extent and quality of its personalization capabilities. The goal is to analyze how well the tool adapts to learners' levels, behaviors, and preferences, and to what degree it genuinely supports differentiated instruction.

HE teaching staff are expected to test the tool (or review documentation), simulate diverse learner inputs, and map how the AI adapts in return. They must identify:

1. What parameters drive the adaptation?
2. Are there limitations or assumptions?
3. Does the personalization improve learning, or merely automate differentiation superficially?

They submit a report outlining findings, judgments, and potential pedagogical improvements.

Example rubric criteria:

- Evidence of exploration: Tool tested across multiple learner profiles
- Analytical depth: Strengths and limits of personalization unpacked
- Pedagogical insight: Connection to inclusive teaching is articulated

- Recommendations: Suggestions are feasible and aligned with context

Example: A teacher tests an adaptive reading platform using profiles for high-achieving, dyslexic, and EAL (English as an Additional Language) learners. They discover the platform adjusts text complexity but not pacing or audio support. They recommend embedding toggles for sentence simplification and visual highlighting, noting that "adaptive" should include cognitive and linguistic variability—not just performance scores.

12. Role-Reversal Reflection: "AI as Teacher"

In this conceptual and reflective exercise, HE teaching staff are asked to switch perspectives and consider how a specific AI tool "teaches." They simulate the tool's logic, biases, instructional sequence, and limitations, then critically reflect on what kind of HE teaching staff the AI becomes—and what kind it fails to be.

This meta-pedagogical exercise challenges HE teaching staff to recognize how AI tools encode assumptions about learning, feedback, pacing, and even authority.

The final output is a written narrative or short creative piece (e.g., first-person AI monologue, reflection essay, or satirical sketch).

Example rubric criteria:

- Perspective-taking: The HE teaching staff enters the AI's instructional logic convincingly
- Pedagogical critique: Reveals what AI promotes or overlooks
- Imaginative rigor: The thought experiment is insightful, not gimmicky
- Reflexive conclusion: HE teaching staff relates findings to their own practice

Example: An HE teaching staff writes a fictional reflection titled "I Am GrammarBot" in which the AI describes its obsession with passive voice and sentence length. It reflects on never understanding context or nuance. The HE teaching staff concludes that while the tool is useful, they must frame its use carefully so students don't conflate correctness with quality.

13. Accessibility Adaptation Plan

This method asks HE teaching staff to take a commonly used AI teaching tool and design adaptations that improve its accessibility for students with disabilities, neurodiversity, or language-based learning differences. The task goes beyond configuration: it requires creative rethinking of how AI fits into Universal Design for Learning (UDL) frameworks.

HE teaching staff identifies barriers, propose workarounds or supplemental supports, and reflect on ethical concerns regarding inclusivity, agency, and stigma.

Deliverables include:

1. A tool review (focusing on accessibility gaps)
2. A redesigned usage plan
3. Justification of decisions based on inclusion principles

Example rubric criteria:

- Barrier identification: Clearly locates real or potential access gaps
- UDL alignment: Adaptations follow multiple means of engagement and expression
- Student-centered thinking: Focuses on learner empowerment

- Feasibility: Adaptations are realistically implementable

Example: A lecturer uses an AI video summarizer that generates transcripts and summaries. They discover it lacks screen-reader optimization and requires high reading fluency. They embed caption correction activities, provide summaries at multiple reading levels, and create a text-to-speech version. The reflection highlights how AI efficiency can mask deep exclusion if unchecked.

14. Multi-Modal Feedback Comparison

In this method, HE teaching staff compare different modes of feedback—AI-generated, peer, and teacher-led—on the same learner artefact (e.g., a written assignment or project draft). The task is to analyze how the feedback types differ in depth, tone, precision, and formative value.
The HE teaching staff writes a comparative analysis discussing:

1. How students might perceive each form of feedback
2. Where AI supports or undermines learning
3. What balance is ideal for their context

This activity builds fine-grained awareness of AI's pedagogical positioning, especially in formative assessment.

Example rubric criteria:

- Analytical sharpness: Differences are explained with clarity
- Student empathy: Anticipates diverse learner reactions
- Formative logic: Sees feedback as dialogue, not correction
- Positioning: HE teaching staff explains how they'll use each mode

Example: A humanities teacher uses an AI grader for structure, peer feedback for content, and instructor comments for argument quality. They observe that AI is too confident, peers are encouraging but vague, and their own feedback is most nuanced but time-consuming. They decide to merge modes in a structured feedback cycle.

15. AI-Driven Differentiation Showcase

This assessment method invites HE teaching staff to present a concrete showcase (video, walkthrough, slides, or report) of how they used AI to differentiate instruction for real or simulated learners. The showcase includes:

1. Student profiles and needs
2. AI tool(s) chosen and why
3. Evidence of differentiation (e.g., varied activities, support levels)
4. Outcomes or expected impacts

This method highlights mastery in aligning AI tools with pedagogical intention and learner diversity. It can also serve as a capstone demonstration or portfolio artefact.

Example rubric criteria:

- Clarity and coherence: Design choices are logical and learner-centered
- Evidence of impact: Learning benefits are clear or plausibly predicted
- Innovation: Uses AI in creative, non-generic ways
- Ethical reflection: Addresses risks of over-differentiation or labelling

Example: A business studies HE teaching staff presents how they used an AI quiz generator with logic branching for students with varied prior knowledge. Stronger students got challenge questions and peer mentoring prompts; others got guided revision. The HE teaching staff reflects on balancing stretch and support while ensuring learners didn't feel pigeonholed.

16. Instructional Scenario Rewrite with AI Overlay

This method involves taking a standard instructional scenario—such as a lecture, small group activity, or assessment task—and rewriting it to incorporate AI in a meaningful, pedagogically driven way. The aim is to show how AI can be embedded not as an add-on, but as a pedagogical enhancer or problem-solver.
HE teaching staff are provided with a baseline scenario or use one of their own. They must submit:

1. The original scenario with learning goals
2. The AI-enhanced version, step-by-step
3. A justification of the integration
4. Consideration of learner experience and inclusiveness

The focus is not on tool fluency but on design logic: What does AI change pedagogically—and is it worth it?

Example rubric criteria:

- Pedagogical enhancement: AI improves clarity, engagement, differentiation
- Transparency: Learners would understand how and why AI is used
- Risk and benefit balance: HE teaching staff anticipates side effects or over-reliance
- Inclusiveness: Adapted scenario remains accessible to all learners

Example: A history instructor rewrites a timeline activity by integrating an AI-based primary source recommender. Learners input event keywords, and the AI suggests historical documents. The HE teaching staff scaffolds this with a critical evaluation task: students must assess the AI's choices for bias, relevance, and diversity of perspective.

17. Bias Reflection Exercise on AI-Supported Teaching

This method is a reflective writing task focused on surfacing unconscious assumptions HE teaching staff might bring into AI-supported teaching—especially regarding which students are "likely" to benefit from automation or which aspects of teaching are "safe" to delegate to machines.
HE teaching staff are prompted with questions such as:

1. "Which learners might be most marginalized by the AI tools you use?"
2. "What do you assume about the objectivity of AI?"
3. "What parts of your teaching do you find hardest to hand over to AI, and why?"

This is especially powerful when combined with tool audits or student feedback.

Example rubric criteria:

- Self-awareness: HE teaching staff recognizes own comfort zones and biases
- Connection to practice: Reflections relate directly to tool use and student impact
- Depth: Goes beyond platitudes to explore contradictions or discomfort

- Commitment: HE teaching staff outlines how they will address or monitor these issues

Example: A science lecturer realizes through this task that they've been promoting an AI homework auto-grader but haven't considered how it penalizes students with limited bandwidth or writing confidence. They commit to reintroducing optional manual review pathways.

18. Learner Persona + AI Support Plan

In this design-based task, HE teaching staff create 2–3 detailed learner personas (e.g., first-year international student with dyslexia; part-time caregiver returning to education) and design an AI-enhanced teaching plan that supports these learners equitably.
The plan should include:

1. Persona description (goals, barriers, context)
2. AI tools or features mapped to their needs
3. Pedagogical strategies and scaffolds
4. Anticipated challenges and responses

This method promotes empathetic design thinking and bridges AI technicality with human-centred planning.

Example rubric criteria:

- Persona richness: Includes affective, cognitive, and contextual factors
- Tool-student fit: AI use is clearly tailored, not generic
- Instructional alignment: Strategies complement rather than over-rely on AI
- Ethical and inclusion logic: Considers stigma, over-tracking, or access barriers

Example: A computing instructor creates a persona of a second-language learner struggling with real-time debugging. They pair an AI code explainer tool with peer mentoring and build in checkpoints where learners are encouraged to challenge the AI's suggestion rather than follow it blindly.

19. AI as Learning Partner – Co-Activity Design

This method invites HE teaching staff to design a student learning activity in which the AI is treated explicitly as a partner or co-learner, not as a tool, grader, or tutor. The HE teaching staff must define the role of the AI in the activity and how the student is encouraged to interact critically and reflectively with it.
Examples include:

1. Co-writing with a generative AI (with attribution and critique)
2. Using an AI assistant to build a study plan, then modifying it
3. Debating with an AI chatbot and identifying its assumptions

The HE teaching staff must explain how they frame this AI-student relationship and scaffold agency and meta-cognition.

Example rubric criteria:

- Activity design: AI is integrated with a clear pedagogical role
- Critical engagement: Students are not passive recipients of AI output
- Framing and support: HE teaching staff provides ethical and practical guidance
- Learning outcomes: Activity supports reasoning, agency, or synthesis

Example: A law professor designs a mock trial where students argue against positions generated by an AI legal bot. The bot's arguments are flawed but plausible. Students must rebut them using real precedent, and then reflect on how persuasive language can mask legal weakness.

20. "What If AI?" Thought Experiment

In this imaginative method, HE teaching staff write a speculative essay or scenario imagining how their course might evolve if AI tools were (a) completely removed, (b) fully embedded, or (c) governed by strict ethical guidelines. This encourages systems thinking, imagination, and critical boundary-setting. Each thought experiment version must explore:

1. Pedagogical consequences
2. Learner experience shifts
3. Ethical and practical trade-offs
4. Institutional or social ramifications

This task helps HE teaching staff articulate their limits, hopes, and priorities when navigating AI use in teaching.

Example rubric criteria:

- Breadth of vision: Explores more than one layer (students, institution, society)
- Positioning: HE teaching staff stakes a position and defends it
- Implications: Considers both practical and philosophical consequences
- Depth and creativity: Goes beyond clichés or idealism

Example: A sociology lecturer imagines their course without any AI support—realizing that for neurodiverse students, this would be a step backward. In the "full AI" version, they notice that instructor presence is diminished. In the ethical governance version, they propose student-led consent dashboards for data use, reshaping power dynamics.

2. AI-Enhanced Curriculum Design and Assessment: Designing for Depth, Equity, and Adaptability

As AI tools become embedded not only in content delivery but also in how learning outcomes are defined, assessed, and reported, HE teaching staff are increasingly required to design curricula and assessment frameworks that both integrate and respond to AI. This second competence domain—AI-enhanced curriculum and assessment design—includes the ability to align AI tools with intended learning outcomes, to scaffold AI-supported learning pathways, and to iterate curricula in response to AI-mediated analytics and student feedback.

2.1 Why Assessment Tools Are Necessary

1. To ensure constructive alignment. Curriculum design must balance technological affordances with intended learning goals, assessment criteria, and learner context (Biggs & Tang, 2011). AI tools that personalize learning content or automate formative feedback can enhance student autonomy—but only if HE teaching staff are competent in evaluating whether such tools support, distort, or bypass core educational objectives.
1. Assessment tools such as alignment matrices, scenario-based validation tasks, and design walkthroughs can help HE teaching staff reflect on how AI interventions serve or conflict with the aims of a course or program.
2. To scaffold adaptive learning responsibly. AI systems increasingly provide real-time feedback, predictive analytics, and learning path recommendations. However, as Ifenthaler and Yau (2020) note, HE teaching staff often lack training in interpreting these outputs pedagogically or ethically. Assessment frameworks must include analytics interpretation tasks, simulations, and role-play exercises that examine how HE teaching staff design interventions based on AI-informed insights.
3. To promote inclusive, data-informed redesign. One of the promises of AI is the potential to use data for continuous curriculum improvement. Yet HE teaching staff often lack mechanisms to translate dashboards or usage metrics into pedagogical decisions. Assessment tools can include curriculum review protocols that prompt instructors to interrogate which learner groups benefit from AI tools, which are left out, and how equity can be built into redesign cycles (Smith et al., 2021).

2.2 Risks of Non-Assessment

Absent systematic assessment, AI-enhanced curriculum design can become reactive, technocratic, or exclusionary. Curriculum redesigns may reflect vendor capabilities more than learning needs, reinforcing what Selwyn (2019) calls the “technological framing” of education, in which tools determine pedagogy rather than the reverse.

Moreover, if AI data is used without critical interpretation, assessment decisions may misrepresent student understanding or penalize atypical learning behaviors—especially among multilingual, neurodiverse, or non-traditional learners (Williamson & Eynon, 2020).

Assessment tools in this domain are thus not optional—they are protective, developmental, and strategic instruments that help institutions balance innovation with quality assurance and educational justice.

2.3 Assessment tools

For Type 2: AI-Enhanced Curriculum Design and Assessment Competences, which relate to HE teaching staff' ability to incorporate AI into learning objectives, course planning, assessment strategies,

scaffolding, and curricular inclusiveness, each assessment method is presented below with a short word narrative description, followed by a practical example and rubric elements. In total 20 assessment tools are proposed. More specifically:

1. AI-Infused Syllabus Development Task

This method requires HE teaching staff to create or revise a full course syllabus, embedding AI tools strategically into objectives, teaching methods, learning activities, and assessment strategies. The focus is on alignment: how the use of AI strengthens the coherence between learning goals, pedagogical choices, and evaluation mechanisms.
HE teaching staff should:

1. Identify specific AI tools and clarify their pedagogical roles.
2. Embed ethical and inclusive language related to AI use.
3. Provide guidance on AI-related expectations and student responsibilities.
4. Include reflection or metacognitive elements around AI usage.

The submitted syllabus must not simply "mention" AI but show intentional, integrative thinking.

Example rubric criteria:

- Alignment: Learning outcomes, activities, and assessments are logically connected.
- Transparency: AI use is clearly explained to students.
- Inclusiveness: Accessibility and ethics are considered in design choices.
- Pedagogical rationale: Justifications demonstrate awareness of affordances and risks.

Example: A communications professor revises their media literacy course to include generative AI as a tool for producing press releases and analyzing bias. The syllabus includes clear policies on attribution, outlines an AI critique assignment, and frames AI as a topic of discussion, not just a tool. The HE teaching staff includes a note that students may opt out of AI use, with human alternatives provided.

2. Assessment Strategy Redesign with AI Integration

In this task, HE teaching staff revise an existing assessment strategy to meaningfully incorporate AI in a way that supports fairness, personalization, or feedback quality. The redesign could involve formative or summative components—such as AI-generated rubrics, automated draft review, adaptive quizzes, or real-time feedback loops.
The key is coherence: AI must enhance—not distort—assessment validity and pedagogical fairness.
HE teaching staff must explain:

1. What AI tool or approach was used
2. What need it addressed (e.g., feedback overload, differentiation, data analysis)
3. What ethical risks were mitigated (e.g., bias, surveillance, over-automation)
4. How students were prepared to engage with AI-based assessment

Example rubric criteria:

- Assessment validity: Learning is assessed authentically, not just automatically.
- Transparency and consent: Students understand and agree to the AI role.
- Equity: The redesign considers diverse learner needs.
- Justification: The change is purposeful and evidence-informed.

Example: A lecturer redesigns peer assessment in a design course using an AI comment analyzer that categorizes feedback as descriptive, evaluative, or constructive. Students use it to improve their feedback before submission. The HE teaching staff ensures that AI suggestions remain optional and runs workshops on recognizing poor AI judgment.

3. Learning Outcome Mapping Exercise Using AI Taxonomies

This method invites HE teaching staff to revise or create learning outcomes using taxonomies enhanced by AI tools or databases (e.g., Bloom's taxonomy visualizers, competency generators, or AI curriculum planners). They must then critique these tools' suggestions against their own pedagogical judgment.

The goal is to evaluate:

1. How AI-generated or AI-enhanced outcomes compare to human-crafted ones
2. Whether AI understands disciplinary nuance or student needs
3. Where AI supports or dilutes clarity, challenge, or inclusivity
4. HE teaching staff reflect on what they kept, revised, or rejected, and why.

Example rubric criteria:

- Taxonomy alignment: Outcomes reflect appropriate levels of cognitive demand
- Disciplinary specificity: AI suggestions are critiqued for contextual fit
- Human oversight: HE teaching staff distinguishes between convenience and coherence
- Inclusivity: Outcomes consider diverse learner pathways

Example: A nursing lecturer uses an AI tool to rewrite learning outcomes and receives vague verbs like "understand" or "appreciate." They critique this as pedagogically weak, revising to "evaluate risk signals in patient data" and "justify triage decisions using diagnostic protocols." The reflection discusses the need for domain knowledge in AI curriculum support.

4. Peer Review of AI-Enhanced Course Plan

In this collaborative method, HE teaching staff exchange course outlines or modules that incorporate AI, then review each other's work using a structured peer feedback guide. The reviewer assesses the quality of AI integration in terms of alignment, ethics, accessibility, and student experience.

This method enhances peer learning, exposes HE teaching staff to different practices, and builds shared literacy around what "good" AI integration looks like.

Deliverables include:

1. Annotated peer feedback
2. A summary memo reflecting on the feedback received
3. Optional follow-up revisions

Example rubric criteria:

- Constructiveness: Feedback is specific, respectful, and actionable
- Ethical literacy: Reviewer identifies ethical gaps or strong practices
- Curricular alignment: Reviewer comments on flow and coherence
- Self-reflection: Author engages with feedback thoughtfully

Example: A psychology lecturer reviews a colleague's AI-integrated lab design course. They commend the use of AI simulations for disorders but caution against using diagnostic prediction tools without context. The author revises their assignment to include a critical AI analysis task before using the tool.

5. Automated Feedback Critique Assignment

In this assessment, HE teaching staff are given anonymized examples of AI-generated student feedback from tools such as automated essay graders, grammar checkers, or AI peer review platforms. They are asked to evaluate:

1. The accuracy of feedback
2. Its usefulness for student learning
3. Its inclusiveness and tone
4. What a human might do differently—or better

This method helps HE teaching staff avoid over-trusting AI and reinforces the importance of pedagogical judgment in curriculum-embedded feedback systems.

Example rubric criteria:

- Analytical depth: Clear and specific critique of feedback quality
- Pedagogical awareness: Recognizes formative vs summative functions
- Equity lens: Feedback is examined for bias, tone, or harm
- Design implications: HE teaching staff outlines how to improve AI use

Example: An English lecturer reviews AI feedback on three writing samples. They notice the tool praises superficial coherence but misses argument flaws and deducts for informal language used by multilingual students. They propose adding instructor moderation and student training on interpreting AI comments critically.

6. Curriculum Inclusiveness Audit (AI Edition)

In this method, HE teaching staff perform a critical audit of their course or module through the lens of AI-supported equity and inclusion. They examine how AI tools, data sources, or automation strategies used in the course may impact different learner groups—especially students with disabilities, language barriers, or non-traditional educational paths.

This is not just a checklist. HE teaching staff must analyze:

1. Which AI tools are embedded and how they interact with curriculum content
2. Whether certain groups might be excluded or disadvantaged by default AI settings
3. Whether AI amplifies or reduces existing curricular inequities
4. What adaptations or mitigations are needed

The final output is an audit report with annotated curriculum artefacts (e.g., marked-up syllabus, assignments), proposed changes, and a rationale.

Example rubric criteria:

- Bias identification: Detects structural exclusions in AI integration
- Pedagogical insight: Connects AI design with learner access and success
- Adaptation strategy: Suggestions are actionable and learner-centered
- Ethical foresight: Reflects on long-term risks of normalization

Example: An HE teaching staff reviews an adaptive reading system used in an online course. They find the platform penalizes students who skip pre-tests, locking them into "basic" texts. They revise the system flow to allow student choice, add human review overrides, and build in multilingual glossaries to support EAL learners.

7. AI-Enhanced Assessment Design Simulation

HE teaching staff are tasked with designing a formative or summative assessment that uses AI not simply for grading or automation, but to support deeper learning and feedback. This simulation includes:

1. A detailed assignment brief
2. Sample student inputs and expected AI tool outputs
3. Reflection on how the AI contributes to or detracts from pedagogical aims
4. Options for students to engage critically with the AI (e.g., reflection on AI feedback, comparison to human assessment)

The goal is to assess instructional design fluency, ethical anticipation, and feedback literacy.

Example rubric criteria:

- Learning focus: AI is used to deepen—not distract from—student understanding
- Transparency: Students know what AI is doing and why
- Agency and critique: Students are invited to respond to or challenge AI input
- Technical feasibility: The simulation is grounded in realistic use

Example: A writing-intensive course includes an AI-supported draft submission. The HE teaching staff designs it so that students first write a draft, receive AI-generated feedback on structure and clarity, and then write a meta-reflection on how they used—or ignored—that feedback. They submit both the revised essay and the reflection for final grading.

8. Collaborative AI Curriculum Jam

This group-based assessment involves multiple HE teaching staff co-developing a mini-curriculum module using a shared AI toolset. Each participant contributes a learning objective, a content piece (lecture, activity, assessment), and a reflection on their design process. The focus is on interoperability: how do AI tools support consistency and learner flow across disciplinary or instructional boundaries?

The final deliverables include:

1. A short integrated curriculum module
2. Annotated lesson plans
3. Group reflections on AI use, negotiation of norms, and ethical tensions

This method promotes interdisciplinary thinking and collective curriculum intelligence.

Example rubric criteria:

- Collaborative coherence: Module flows logically across contributors
- Tool integration: AI is used intentionally in multiple stages (planning, delivery, assessment)
- Team reflection: Reveals negotiation of values and design tensions
- Innovation and risk-taking: Group explores creative or unconventional AI applications

Example: A social sciences team builds a module on digital ethics. One HE teaching staff uses AI to generate diverse ethical case studies, another integrates a feedback chatbot to guide students through decision trees, and the third assesses AI-generated student justifications using a rubric. Their reflection details how they negotiated responsibility for AI supervision.

9. Rubric Co-Design with AI Augmentation

HE teaching staff engage in a dual process: first designing a rubric for a complex student task (e.g., presentation, portfolio, design challenge), then using an AI rubric generator to compare, critique, and possibly improve their design. The purpose is twofold:

a) To build awareness of how rubric language shapes learning
b) To test the strengths and limitations of AI in supporting evaluative judgment

The final submission includes:

1. The original rubric
2. The AI-generated or AI-augmented version
3. A reflection on differences, trade-offs, and decisions made

Example rubric criteria:

- Criteria clarity: Rubric categories are student-friendly and outcome-aligned
- Comparative insight: AI output is assessed thoughtfully
- Assessment literacy: HE teaching staff explains how rubrics guide teaching and learning
- Ethical considerations: Reflection includes risk of rigid or mechanistic assessment

Example: A design instructor notices that the AI-generated rubric overemphasizes format and grammar while underplaying creativity. They retain the structure but revise descriptors to highlight originality and iterative process. They also insert a note in the rubric for students explaining how to interpret AI moderation fairly.

10. Learning Analytics Interpretation Task

HE teaching staff receive a mock (or real) dataset from an AI learning analytics dashboard—e.g., student engagement rates, tool usage logs, predicted outcomes—and are asked to:

1. Interpret the data from a pedagogical standpoint
2. Identify patterns, biases, or gaps
3. Propose instructional responses or assessment adjustments
4. Reflect on limitations of data-driven conclusions

The aim is to assess data literacy, ethical reflexivity, and curriculum adaptability.

Example rubric criteria:

- Analytical reasoning: Patterns are interpreted meaningfully, not just described
- Instructional responsiveness: Data insights inform actual curriculum changes
- Critical stance: HE teaching staff challenges AI assumptions or outputs as needed
- Learner advocacy: Reflection centers student wellbeing and inclusion

Example: A math HE teaching staff sees that engagement rates for a problem-solving tool drop sharply after the first week. They realize that the AI over-scaffolds initially, leading to boredom. They adjust the module design to frontload student-driven tasks and redesign support to fade in rather than out.

11. Curriculum Feedback Loop Mapping

In this method, HE teaching staff are asked to diagram and narrate the feedback flows in their curriculum, identifying where and how AI tools can be strategically embedded to enhance these loops. Feedback may involve student-to-instructor, peer-to-peer, AI-to-student, or student-to-AI cycles.
The goal is to create an intentional plan showing:

1. Where AI feedback supplements human insight
2. Where over-automation might undermine reflection or personalization
3. How feedback scaffolds learner autonomy and improvement
4. What mechanisms ensure students know how to interpret or question AI input
5. HE teaching staff submit a visual feedback map and an explanatory narrative.

Example rubric criteria:

- Systems thinking: Diagram shows multiple feedback paths
- Intentionality: AI tools are placed purposefully and pedagogically
- Learner empowerment: Students have agency in feedback interpretation
- Ethical design: Addresses power dynamics and over-reliance risks

Example: A language teacher maps AI grammar feedback (early drafts), peer feedback (content), and instructor feedback (final draft). They add a checkpoint where students evaluate and discuss conflicting AI and peer advice before revision. Their narrative explains how this supports writing agency and reflection.

12. AI Tool Comparative Trial (Curriculum-Fit Focus)

This task invites HE teaching staff to test two or more AI tools that could be used for the same curricular function—such as automated feedback, adaptive practice, or formative self-checks. The focus is to assess not which tool is "better" in general, but which one fits the HE teaching staff's curriculum structure, learning objectives, and student cohort more effectively.
The deliverable includes:

1. Tool profiles and side-by-side comparisons
2. Use scenarios or sample tasks
3. Decision rationale
4. Reflections on integration, adaptation, and constraints

This method builds evaluative judgment and resource alignment skills.

Example rubric criteria:

- Curricular alignment: Tool choice is grounded in learning goals
- Context sensitivity: Evaluation considers learner diversity and institutional realities
- Critical comparison: Differences in function, pedagogy, and UX are articulated
- Implementation foresight: HE teaching staff anticipates support and risk factors

Example: A physics HE teaching staff compares two AI problem generators. One offers polished but rigid question banks; the other is open-source and modifiable. The HE teaching staff chooses the latter,

citing better curricular fit for inquiry-based learning and the ability to adjust language complexity for non-native English speakers.

13. Adaptive Pathway Scenario Design

HE teaching staff create a hypothetical learning journey using AI-based adaptivity tools (e.g., intelligent tutors, branching quizzes, mastery learning platforms). They must design three distinct learner profiles (e.g., advanced, struggling, disengaged) and illustrate how the AI system would guide each student through the curriculum.

Deliverables include:

1. Learner profiles
2. Scenario flows with checkpoints and AI interventions
3. Pedagogical rationale for adaptivity decisions
4. Reflection on what human support is needed to complement AI

This method enhances HE teaching staff' capacity to design flexible, equitable curriculum flows.

Example rubric criteria:

- Differentiation depth: Scenarios show meaningful pedagogical variation
- Learner realism: Profiles reflect authentic diversity
- AI-human balance: HE teaching staff clarifies where human oversight is essential
- Inclusiveness: Pathways are empowering, not deficit-based

Example: An HE teaching staff in environmental science designs an adaptive unit on climate models. Advanced students can progress through open-ended simulations, while others receive scaffolded prompts and glossary support. One student struggles with AI terminology, prompting a parallel human mentor path.

14. Student-Facing AI Orientation Resource

This assessment asks HE teaching staff to develop a learning resource for students that explains how AI will be used in the course, what the expectations and limitations are, and how learners can engage critically with the tools.

The resource could be a handout, video, slide deck, or microsite and must include:

1. Tool purposes and access information
2. Ethical guidance (e.g., attribution, data use, AI limitations)
3. Opportunities for student feedback or choice
4. Support options for accessibility and comprehension

This method evaluates transparency, ethical communication, and curricular onboarding strategy.

Example rubric criteria:

- Clarity: Students can understand and follow the resource independently
- Ethical framing: Issues of fairness, authorship, and consent are addressed
- Engagement: Resource promotes active student inquiry and ownership
- Scalability: Resource could be reused or adapted by others

Example: A psychology lecturer creates a slide deck explaining the role of AI-generated case studies and how students will critique these for accuracy and bias. The deck includes tips on identifying hallucinations, a FAQ section, and a student forum for raising AI-related concerns.

15. Backward Design Plan with AI Integration

HE teaching staff complete a backward design task for a course or unit, starting from desired learning outcomes, then identifying appropriate assessment evidence, followed by instructional activities—all incorporating AI where appropriate.

They must explain:

1. Where AI is essential vs optional
2. How AI helps (or complicates) evidencing student learning
3. What changes are needed in the sequencing or pacing
4. How students are guided to use AI reflectively and ethically

This method assesses curriculum planning fluency and the ability to harness AI without compromising pedagogical coherence.

Example rubric criteria:

- Alignment: Outcomes, evidence, and instruction are clearly connected
- AI logic: Each tool's role is pedagogically justified
- Transparency and pacing: Students are introduced to AI progressively and supportively
- Adaptability: Plan allows for learner variance and AI failure contingencies

Example: A health sciences course includes a backward-designed unit on patient education. The instructor embeds a generative AI task to help students draft accessible pamphlets, which are then peer-reviewed for empathy and clarity. The instructor explains that AI scaffolds the draft phase but is never the final evaluator.

16. Curriculum Ideation Sprint Using Generative AI

This method challenges HE teaching staff to use generative AI tools (e.g., ChatGPT, Copilot, CourseMojo) in a fast-paced design sprint to brainstorm new curriculum ideas. The emphasis is not on adopting the outputs uncritically, but on using AI to provoke ideation, then refining or rejecting ideas through professional judgment.

The task includes:

1. A recorded or documented ideation session using AI
2. A critical selection of viable outputs
3. A reflective commentary on what was adopted, adapted, or discarded
4. Consideration of how this process could support or mislead other HE teaching staff

This method encourages creative experimentation while reinforcing human oversight in curriculum innovation.

Example rubric criteria:

- Creative use: AI was used to explore unconventional or expanded ideas
- Discretion and filtering: Output was critically reviewed and refined
- Reflection: HE teaching staff acknowledges the risk of overfitting or uncritical adoption
- Utility: The resulting ideas align with pedagogical aims

Example: A social work lecturer uses an AI chatbot to generate potential case study topics and assessment formats. While the tool suggests several uninformed or problematic scenarios, it also proposes a simulation-based role-play structure that inspires a more inclusive module. The lecturer's reflection critiques the tool's cultural blind spots and praises its structural creativity.

17. Multi-Stakeholder Curriculum Dialogue Simulation

In this role-playing or written simulation, HE teaching staff engage in a scenario where different institutional stakeholders (e.g., students, admin, disabled student services, IT, ethics board) respond to an AI integration proposal within a course. The HE teaching staff must articulate and negotiate competing priorities.
The method assesses not only curricular design skills but also socio-institutional awareness.
Deliverables include:

1. Stakeholder positions or scripts
2. HE teaching staff's synthesis and revised plan
3. A reflection on how institutional dynamics shape curriculum design with AI

Example rubric criteria:

- Stakeholder empathy: Positions are represented fairly and intelligently
- Negotiation of values: Final decisions reflect compromise and priorities
- Institutional literacy: HE teaching staff shows knowledge of curriculum approval processes
- Critical realism: Acknowledges tensions (e.g., efficiency vs ethics)

Example: An HE teaching staff proposes integrating an AI tutor in a statistics course. Student reps express concern over dehumanization; IT wants centralization; disability services raise accessibility issues. The HE teaching staff proposes a hybrid model with opt-out routes, better onboarding, and equity oversight mechanisms.

18. Curriculum Sandbox Prototyping

HE teaching staff design and test a micro-module (e.g., 1–2 week unit) in a "sandbox" environment using available AI tools. They must document:

1. Learning goals
2. AI tool configuration
3. Student interaction points
4. Data collection (real or simulated)
5. Reflections on usability, impact, and redesign

This method emphasizes rapid prototyping and iterative improvement. It's ideal for professional development programs or learning design residencies.

Example rubric criteria:

- Prototype clarity: Unit is structured and deliverable
- Iteration: HE teaching staff updates design based on observation or feedback
- Tool fit: AI is selected based on instructional context
- Learner simulation: Anticipates real student use and pitfalls

Example: A computer science instructor designs a coding support module with an AI-based debugger. During sandbox testing, they notice the tool flags too many false positives for novices. They redesign the prompts to encourage questioning and add a "challenge the bot" bonus task.

19. Student-Created Curriculum Activity Design with AI

This method flips the role of the HE teaching staff and asks them to support students in co-designing a learning activity or assessment with the help of AI tools. The HE teaching staff must:

1. Provide scaffolds and constraints
2. Facilitate discussions about AI bias, fairness, and curricular goals
3. Curate or assess student proposals
4. Reflect on the pedagogical value of student-led curriculum design

This method assesses not only content planning, but the HE teaching staff's ability to guide learner agency and metacognitive development.

Example rubric criteria:

- Facilitation strategy: HE teaching staff builds a supportive design space
- Student-centeredness: Task is structured for accessible co-creation
- Ethical coaching: Students are guided in using AI responsibly
- Reflective maturity: HE teaching staff assesses how co-design impacts learning

Example: A philosophy professor asks students to design an ethics debate using an AI question generator. Students critique the tool's assumptions and revise the questions. The HE teaching staff reflects on the challenge of relinquishing control and the benefits of exposing curricular assumptions to student input.

20. AI-Resilience Curriculum Stress Test

In this risk-assessment-oriented method, HE teaching staff are asked to stress-test their AI-integrated curriculum by anticipating failure points. They simulate or model what happens when:

1. AI tools malfunction or disappear
2. AI outputs are biased, harmful, or incorrect
3. Students misuse AI tools or rely on them excessively
4. Institutional policies shift mid-course

The HE teaching staff then revises their curriculum to build in resilience: backup plans, flexible alternatives, fail-safes, and feedback loops.

Example rubric criteria:

- Foresight: Multiple plausible risks are considered
- Mitigation planning: Backup strategies are concrete and learner-centered
- Systemic awareness: Recognizes dependencies (e.g., IT support, licenses)
- Instructional integrity: Curriculum still functions without AI if needed

Example: A law school instructor plans for a chatbot that provides sample case law. Anticipating that the chatbot might generate hallucinated citations or be blocked by admin, they embed a library activity and a peer-check system. They also prepare a printable version of the task to ensure offline access.

3. Ethical, Inclusive, and Data-Literate AI Use: Assessment as an Instrument of Accountability

The third competence domain is arguably the most foundational: HE teaching staff must develop and demonstrate the ability to use AI systems ethically, inclusively, and with data literacy. This includes awareness of algorithmic bias, data protection principles, accessibility, and student rights. As AI systems increasingly mediate educational processes—from plagiarism detection to adaptive learning—it is imperative that HE teaching staff do not merely comply with guidelines, but internalize and practice data-conscious pedagogy.

3.1 Why Assessment Tools Are Critical

1. To surface and challenge invisible risks. HE teaching staff are often unaware of the full data ecosystem surrounding AI tools. Assessment tools such as data mapping exercises, student data ethics memos, or AI audit tasks help surface what data is collected, how it's interpreted, and by whom. These tasks cultivate the kind of reflective literacy that compliance checklists alone cannot.
2. To support inclusion and accessibility. AI tools often fail to accommodate learners with disabilities or those who do not fit standard usage patterns. Assessment methods such as accessibility failure case studies or inclusive algorithm redesign pitches help HE teaching staff develop the competence to critically examine default tool design and implement remedial strategies (UNESCO, 2021; Smith et al., 2021).
3. To promote student trust and agency. Assessment tools can support the development of transparent teaching practices—such as designing AI use disclosure letters or facilitating student-led reflections on AI-supported feedback. These methods promote what Fawns et al. (2022) describe as "relational ethics," where the classroom is a site of shared reflection, not hidden surveillance.

3.2 Risks of Non-Assessment

In the absence of assessment, ethical and inclusive AI practices are left to discretion, resulting in wide variance across programs and instructors. This risks reinforcing inequality, undermining student trust, and placing institutions in legal and reputational jeopardy (European Commission, 2022).
Moreover, faculty often underestimate their own ethical role, assuming that institutional systems are already compliant or externally governed. Structured assessment tools serve to re-activate the HE teaching staff's ethical agency, transforming them from passive users into informed stewards of student data and learning rights (Williamson & Eynon, 2020).

3.3 Assessment tools

For Type 3: Ethical, Inclusive, and Data-Literate AI Use Competences, that focus on HE teaching staff's ability to understand and navigate the ethical risks, social implications, data practices, and inclusion dynamics involved in AI integration, the following assessment methods are designed to surface critical judgment, cultural sensitivity, awareness of data ethics, and capacity for inclusive action. Each assessment method is presented below with a short word narrative description, followed by a practical example and rubric elements. In total 20 assessment tools are proposed. More specifically:

1. Ethical Dilemma Case Analysis

HE teaching staff are presented with complex, context-specific case studies that surface AI-related ethical dilemmas—such as algorithmic bias, student surveillance, intellectual property conflicts, or

data opacity. They are asked to analyze the dilemma through ethical lenses (e.g., fairness, autonomy, harm reduction), then recommend a justified course of action.
Deliverables typically include:

1. A structured case analysis using a decision-making framework (e.g., ethical triangle, stakeholder mapping)
2. Reflections on potential unintended consequences
3. Connections to professional standards, inclusion principles, or institutional policy

Example rubric criteria:

- Clarity of ethical dimensions: Accurately identifies core dilemmas
- Stakeholder awareness: Accounts for multiple affected groups
- Decision rationale: Balances ethics, pedagogy, and feasibility
- Inclusivity lens: Detects who might be marginalized or silenced

Example: An HE teaching staff receives a scenario in which an AI plagiarism detection tool flags a disproportionate number of multilingual students. They analyze the data patterns, question the tool's cultural bias, and propose a revised academic integrity protocol that includes human review and student-facing guidance on writing variation.

2. Algorithmic Bias Investigation Task

This method asks HE teaching staff to explore and present how algorithmic bias manifests in one or more educational AI systems. They must research the tool's design, its data sources, and potential points of discrimination (e.g., gendered feedback, racialized scoring, ableist design). This includes a critical review of tool documentation, academic literature, or observed classroom data.
Deliverables may include:

1. A short investigative report
2. An annotated risk map
3. Recommendations for practice or policy

This method promotes data literacy and applied ethics in educational decision-making.

Example rubric criteria:

- Depth of research: Tool and its architecture are thoroughly explored
- Critical awareness: Biases are recognized beyond technical flaws
- Equity impact: Focus on how biases affect real students
- Actionability: Offers realistic responses (e.g., opt-out mechanisms, human moderation)

Example: A teacher explores an AI feedback tool for coding assignments. They find that non-standard indentation styles used by visually impaired learners result in "error" flags. They document the issue and recommend integrating user-controlled style settings and a teacher override option.

3. Student Data Ethics Policy Memo

HE teaching staff develop a one-page institutional or course-level policy brief articulating ethical principles and boundaries regarding the collection, storage, use, and sharing of student data in AI systems. The brief should address:

1. Consent and transparency

2. Retention limits
3. Accessibility of data reports
4. Student rights and appeals

The emphasis is on translating abstract ethical principles into operational guidance for faculty and students alike.

Example rubric criteria:

- Policy clarity: Guidelines are unambiguous and actionable
- Ethical soundness: Policies reflect principles of autonomy, justice, and non-maleficence
- Context fit: Proposal aligns with institutional realities
- Accessibility: Language is clear and student-friendly

Example: A lecturer creates a data policy for an AI-supported peer review platform. They specify that students must consent to anonymized data being used for research, explain how long the data will be stored, and provide a mechanism for data deletion upon request. The memo is reviewed by a student panel for clarity and fairness.

4. AI Bias Role-Play and Debrief

HE teaching staff engage in a facilitated role-play where they assume different identities—student, faculty, administrator, AI developer—and act out a conflict over an AI tool that has produced biased or exclusionary outcomes. After the simulation, they debrief in writing or dialogue, reflecting on:

1. How their perspective shifted
2. What power dynamics surfaced
3. How bias can be resisted institutionally

This method builds empathy, narrative imagination, and institutional insight.

Example rubric criteria:

- Perspective depth: Role is inhabited with credibility and nuance
- Critical empathy: Reflects on how power and identity affect AI perception
- Debrief analysis: Connects personal experience to broader ethical frameworks
- Transformative insight: Proposes systemic or pedagogical change

Example: A participant plays a disabled student excluded from an AI attendance tracker that doesn't account for assistive technology login delays. In the debrief, the HE teaching staff acknowledges that such exclusions often remain invisible and calls for more participatory tool design involving end-users.

5. Data Narrative Mapping

In this reflective task, HE teaching staff trace a specific data trail generated by an AI tool used in their course—such as engagement tracking, predictive analytics, or adaptive learning logs—and map:

1. What data is collected, when, and by whom
2. What assumptions are made in interpreting the data
3. What student stories are included—and what's erased

The HE teaching staff writes a reflective narrative analyzing how these data "speak" and what pedagogical or ethical consequences they produce.

Example rubric criteria:

- Mapping accuracy: Data flow and ownership are correctly identified
- Narrative sensitivity: Recognizes how data flattens or distorts human stories
- Pedagogical implications: Connects insights to teaching strategy or equity
- Critical stance: Does not romanticize data neutrality

Example: A lecturer traces how a learning management system's AI flags "low engagement" for students who download materials but don't interact in forums. They realize this metric penalizes introverted or bandwidth-limited learners and propose an alternative tracking system with mixed indicators and student self-reporting.

6. Values Alignment Reflection

This method invites HE teaching staff to write a reflective statement exploring the alignment—or misalignment—between their core teaching values and the use of AI systems in their educational practice. It is structured around three prompts:

1. "What are your non-negotiables in teaching?"
2. "Where do current or potential uses of AI support those values?"
3. "Where do tensions or compromises appear, and how do you navigate them?"

This method surfaces ethical awareness, personal integrity, and decision-making under constraint.

Example rubric criteria:

- Value articulation: Personal values are clearly defined and justified
- Alignment analysis: AI practices are critically compared against those values
- Tension navigation: Reflects on how to make trade-offs ethically
- Pedagogical integration: Considers how values shape AI tool adoption or rejection

Example: An HE teaching staff who prioritizes student autonomy struggles with using an AI grade predictor that labels students "at risk." In their reflection, they describe how they reframe the tool as an advisory resource, share predictions transparently with students, and co-design improvement strategies rather than using the tool punitively.

7. AI Ethics Dialogue Journal

This ongoing method asks HE teaching staff to engage in structured, written dialogues with a peer or student about AI-related ethical dilemmas. Every week or session, one person writes a short reflection or raises a dilemma, and the other responds. Topics might include bias, surveillance, authorship, accountability, or human-machine relations.

The dialogue should evolve over time, showing:

1. Shifts in understanding
2. Emerging themes or recurring tensions
3. Empathy and intellectual honesty

This method encourages critical humility and peer co-learning.

Example rubric criteria:

- Dialogic quality: Engages in respectful, thought-provoking exchange
- Growth over time: Reflects changing perspectives and emerging questions

- Ethical engagement: Goes beyond compliance to explore moral complexity
- Depth of inquiry: Dilemmas are explored from multiple dimensions

Example: One HE teaching staff shares discomfort with using a chatbot to simulate diverse student voices in discussions. The partner responds with examples of harm from stereotyping, prompting both to co-author guidelines on critical AI usage in culturally sensitive classrooms.

8. "Red Flags" Audit of Institutional AI Policy

In this document-based analysis task, HE teaching staff review their institution's current or proposed policies on AI use (in teaching, assessment, surveillance, or data handling) and identify "red flags"—areas where ethical risk, exclusion, or opacity may arise. They annotate or summarize:

- Unclear terms (e.g., "student data," "anonymized use")
- Gaps in consent, accountability, or student voice
- Vague claims of objectivity or efficiency
- Lack of provisions for accessibility or appeal

HE teaching staff may then propose policy amendments or draft an alternative paragraph.

Example rubric criteria:

- Policy literacy: Understands implications of key clauses
- Critical reasoning: Identifies real, not imagined, risks
- Constructive stance: Proposals aim to improve, not just critique
- Justice lens: Flags impacts on marginalized learners

Example: An HE teaching staff critiques a university's proctoring policy that allows indefinite storage of video recordings analyzed by AI. They argue this creates chilling effects for neurodiverse students and recommend a strict time-bound review, opt-out clause, and ethical impact review board.

9. Teaching with Transparency Letter

In this method, HE teaching staff write a letter addressed to their students (real or imagined) that explains, in plain language:

1. What AI tools will be used in the course
2. What data is collected, by whom, and for what purpose
3. What risks and limitations exist
4. What choices, rights, and recourse students have

This letter must balance honesty with reassurance, complexity with clarity, and institutional framing with personal voice. It can be submitted as a stand-alone artefact or included in syllabi or LMS platforms.

Example rubric criteria:

- Clarity and tone: Letter is accessible and respectful
- Full disclosure: No major data or ethical processes are omitted
- Student empowerment: Promotes informed participation and consent
- Ethical ownership: Reflects HE teaching staff accountability, not deflection

Example: A STEM HE teaching staff explains why an AI assistant is embedded in assignments, how student input is stored, and what students can do if they experience discomfort. They include an invitation for anonymous feedback, commit to reviewing AI recommendations weekly, and offer non-AI alternatives where feasible.

10. Inclusion-Through-Design Portfolio

In this task, HE teaching staff document a set of teaching artefacts (e.g., AI-generated feedback, adaptive quizzes, dashboards, automated rubrics) and annotate how each one was designed or modified to support inclusion and belonging for diverse students. For each artefact, they must:

1. Identify potential exclusion or harm
2. Describe design choices made to counteract those risks
3. Reflect on student response, if applicable
4. Include any feedback received or metrics reviewed

This method highlights inclusive design as a proactive, iterative, and critically aware process.

Example rubric criteria:

- Inclusion focus: Artefacts are purposefully modified to support equity
- Reflection depth: Design decisions are explained and critiqued
- Student impact: Where possible, learner perspectives are considered
- Design transferability: Examples could inspire others to adapt or extend

Example: An HE teaching staff shares a rubric auto-generator they used but modified for a multilingual class. They replaced vague categories like "fluency" with scaffolded language levels, added audio explanations, and ran a workshop on interpreting rubric feedback. Student satisfaction rose, and more learners used the rubric proactively.

11. "Invisible Student" Scenario Design

This assessment asks HE teaching staff to design a scenario involving a student whose identity, learning needs, or circumstances are rendered invisible by the design of an AI-enhanced learning environment. The HE teaching staff must then:

1. Narrate how and why this student remains unseen
2. Identify where the curriculum or AI system fails to register their presence or needs
3. Propose targeted adjustments to re-center this student
4. Reflect on what broader systemic assumptions made this exclusion possible

This task sharpens ethical imagination and inclusion foresight.

Example rubric criteria:

- Narrative realism: The "invisible student" scenario is plausible and concrete
- Structural analysis: HE teaching staff identifies mechanisms of exclusion (not just symptoms)
- Pedagogical response: Proposals are creative, feasible, and student-centered
- Transformational insight: Reflection moves from individual fix to system critique

Example: An HE teaching staff imagines a part-time caregiver using asynchronous AI tutoring but being penalized for irregular logins and "inconsistent engagement." They redesign the dashboard weighting

system, introduce narrative self-assessments to contextualize learning, and adjust course metrics to reward persistence over frequency.

12. Critical Analysis of AI Ethics Frameworks

HE teaching staff select two or more widely circulated AI ethics codes or institutional guidelines (e.g., UNESCO, OECD, institutional digital charters) and critically analyze their relevance, clarity, and practical applicability to the higher education classroom. They must assess:

1. What assumptions the frameworks make about teaching and learning
2. What is included vs. what is omitted (e.g., power, race, language, disability)
3. How the language either empowers or limits HE teaching staff
4. What contradictions or tensions are present

This encourages HE teaching staff to go beyond compliance and become active interpreters of ethical standards.

Example rubric criteria:

- Comparative insight: Frameworks are assessed in relation to each other
- Pedagogical translation: Ethics principles are linked to real practices
- Critical stance: Identifies not just gaps, but ideological patterns
- Agency-oriented thinking: HE teaching staff reflects on how to enact or resist norms

Example: A lecturer compares the UK Jisc AI Code of Practice with a local university's policy. They notice that one centers student autonomy, while the other focuses on institutional risk. They argue for a blended approach and suggest student-led codes of classroom AI ethics.

13. Ethical Forecasting for Emerging AI Tools

This future-facing task asks HE teaching staff to select an emerging AI tool not yet fully adopted in education (e.g., AI emotion recognition, speech analytics, predictive dropout models) and write an ethical forecast:

1. What benefits and risks could arise?
2. Who might be helped or harmed?
3. What regulatory or design conditions would make its use acceptable?
4. What professional development would HE teaching staff need?

This speculative but evidence-based task builds anticipatory ethical literacy.

Example rubric criteria:

- Foresight quality: Identifies plausible futures, not just dystopian extremes
- Equity projection: Maps impact across different learner groups
- Action orientation: Includes safeguards, design feedback, or resistance strategies
- Professional relevance: Connects forecast to curriculum, assessment, or teaching roles

Example: A faculty member analyzes an AI facial analysis tool marketed for "student engagement tracking." They predict disproportionate flagging of neurodivergent students and culturally diverse facial expressions. Their report proposes banning the tool in high-stakes settings and promoting learner self-reports as a more ethical engagement metric.

14. Data Justice in the Classroom Teaching Plan

In this method, HE teaching staff design a single teaching session or unit that introduces students to the concept of data justice, linking it to the use of AI in society and education. The session must:

1. Include a clear definition of data justice
2. Provide real examples (e.g., surveillance, scoring systems, algorithmic poverty)
3. Invite students to reflect on their own data trails and agency
4. Include an activity or artefact (e.g., debate, manifesto, digital diary)

This positions ethical literacy not just as teacher competence, but as shared inquiry.

Example rubric criteria:

- Clarity of concept: Data justice is defined in accessible terms
- Student activation: Session invites engagement and critique
- Relevance to context: Draws on relatable, higher-ed-relevant examples
- Pedagogical integrity: Avoids tech-blaming or empty moralizing

Example: An HE teaching staff in media studies runs a class on "AI and the Digital Poor." Students map what their university's learning platforms collect about them and what's inferred. The session ends with group designs for a "fair data dashboard" prototype.

15. Inclusive Data Practices Protocol

HE teaching staff develop a protocol for ensuring that AI-related data practices in their teaching or institution support inclusion, transparency, and student empowerment. This could apply to data collected via LMSs, proctoring systems, feedback platforms, or adaptive learning tools.

The protocol includes:

1. What data is collected and why
2. How students are informed and consent
3. How equity audits are conducted
4. How exclusions or anomalies are handled ethically

This method assesses design accountability and equity-informed data literacy.

Example rubric criteria:

- Transparency: Protocol is clearly articulated and student-readable
- Inclusion safeguards: Proactively addresses risk of misclassification or digital invisibility
- Implementation logic: Steps are structured and traceable
- Empowerment emphasis: Builds student understanding, not just protection

Example: A course uses a dashboard predicting student success risk. The HE teaching staff's protocol includes weekly human validation, opt-out pathways, regular equity audits (e.g., is disability correlated with low success scores?), and an in-class workshop on "interpreting your own data with care."

16. Ethical Accountability Logbook

This reflective documentation method requires HE teaching staff to maintain a logbook throughout a course or teaching term, recording decisions made about AI tool use, data access, ethical trade-offs, and moments of concern or intervention. Each entry should include:

1. A description of the ethical moment or decision point
2. Stakeholders involved or affected
3. Options considered
4. The final choice and rationale
5. Follow-up or outcome (if any)

This method supports critical tracking and habit-building around ethical self-regulation in real-time contexts.

Example rubric criteria:

- Consistency: Regular, specific, and transparent entries
- Critical engagement: Ethical questions are explored honestly
- Pattern recognition: HE teaching staff reflects on recurring tensions or blind spots
- Pedagogical insight: Connects ethics to classroom practice

Example: A lecturer logs how they dealt with a student's request not to be analyzed by the learning analytics dashboard due to anxiety. They recorded the conversation, sought alternative support plans, and later used the entry to inform a more nuanced class policy about opt-outs.

17. AI-Related Accessibility Failure Analysis

HE teaching staff are asked to identify or reconstruct a real or imagined case in which an AI system used in a teaching context failed to support learners with accessibility needs—or even excluded or harmed them. The HE teaching staff must:

1. Describe the scenario and how the failure occurred
2. Analyze the assumptions behind the tool's design or deployment
3. Evaluate the institutional or instructional response
4. Propose redesigns or policies that could have prevented the exclusion

This method promotes justice-based design reflexes and inclusive systems thinking.

Example rubric criteria:

- Clarity of failure: The case is specific, not hypothetical or vague
- Accessibility principles: Demonstrates understanding of inclusive design
- Root cause analysis: Goes beyond blaming the tool to reveal system issues
- Reparative logic: Proposals reflect care, dignity, and equity

Example: A blended learning course uses an AI summarization tool that cannot transcribe complex equations spoken aloud by the instructor. Visually impaired students relying on screen readers are disadvantaged. The HE teaching staff proposes integrating MathML-ready transcription tools and provides pre-written textual representations for all visual content.

18. Inclusive Algorithm Redesign Pitch

This design-thinking assessment requires HE teaching staff to take an existing AI tool used in education and "pitch" a redesign that makes its algorithm or interface more inclusive, ethically sound, and culturally responsive. This includes:

1. A description of the original tool and its known limitations
2. A redesigned algorithm flow or interface sketch

3. Justification grounded in inclusion principles or ethical standards
4. Optional: feedback from a peer or student "user"

This approach reframes HE teaching staff not as passive consumers of AI, but as co-designers with a stake in shaping its development.

Example rubric criteria:

- Feasibility: Proposed changes are actionable or well-reasoned
- Inclusiveness: Design centers marginalized or misrepresented learners
- Technical imagination: Demonstrates some awareness of algorithmic logic
- Persuasive logic: Pitch clearly communicates problem, solution, and value

Example: A grading assistant that flags "suspicious" submissions due to linguistic patterns is redesigned with a toggle to detect second-language influence, not as an error, but as a dimension of linguistic diversity. The HE teaching staff includes contextual help and suggestions for multilingual feedback calibration.

19. Ethical Disclosure Protocol for AI-Integrated Assignments

In this task, HE teaching staff create a formal disclosure that would be provided to students any time AI is embedded in an assignment—whether for feedback, drafting support, or automated analysis. The protocol outlines:

1. The nature and function of the AI involved
2. Any data used or produced
3. What students are expected to do with the AI's output
4. Warnings, limitations, and support channels

The disclosure must balance detail with clarity, and must empower—not intimidate—students.

Example rubric criteria:

- Clarity and tone: Accessible and non-threatening language
- Accuracy: All relevant AI processes are described truthfully
- Learner rights: Addresses consent, appeal, or opt-out procedures
- Critical pedagogy: Frames AI as something to be understood, not feared

Example: For an assignment using an AI tutor chatbot, a disclosure is provided at the top of the task page. It explains that the chatbot is a language model with no awareness or judgment, may provide flawed advice, and that students must credit the tool in a "reflection on sources" section. The HE teaching staff adds: "You are always allowed to ignore the AI."

20. Personal AI Ethics Statement

This culminating task invites HE teaching staff to write a public-facing personal AI ethics statement. The statement should reflect:

1. Their beliefs about the appropriate role of AI in teaching and learning
2. Boundaries they will maintain in their use of AI tools
3. Responsibilities they carry as HE teaching staff using AI in power-imbalanced settings
4. A commitment to ongoing learning and accountability

5. It should be concise, reflective, and ready for inclusion in teaching portfolios, syllabi, or professional profiles.

Example rubric criteria:

- Authenticity: Statement reflects personal stance, not institutional boilerplate
- Boundaries and agency: Expresses clear positions and rationale
- Learner respect: Acknowledges relational and ethical responsibilities
- Lifelong ethics: Includes commitment to future review and revision

Example: An HE teaching staff writes, "I use AI tools to support—not replace—human feedback. I never allow an algorithm to grade without human review, and I ensure my students know how AI works, where it might fail, and that their voices matter more than any prediction. My goal is to teach with AI, not through it."

4. AI-Driven Professional Development and Collaboration: Assessment for Sustainable Institutional Change

This fourth competence domain addresses the HE teaching staff's role beyond the individual classroom—as a participant in institutional learning, a peer mentor, a co-designer of innovations, and a contributor to ethical AI cultures. As AI adoption in higher education expands, sustainable and inclusive use depends not only on individual competence, but on collective capacity building and collaborative culture formation (Bali & Caines, 2018; Laurillard, 2012).

4.1 Why Assessment Tools Are Necessary

1. To document informal leadership and shared knowledge. HE teaching staff often develop expertise in AI integration through informal experimentation, mentoring, or practice-sharing—forms of leadership that are rarely recognized in performance metrics. Assessment tools such as peer coaching portfolios, co-design narratives, or institutional contribution reports capture these invisible forms of pedagogical labour and support horizontal knowledge flow (Shulman, 2005; Fraser et al., 2007).
2. To support reflective and critical professional growth. AI-related competence is not merely technical—it involves ethical positioning, identity work, and rethinking one's teaching values. Assessment formats such as AI teaching philosophy statements, critical incident reflections, or collaborative dialogue journals offer structured ways for HE teaching staff to track their learning, challenges, and questions over time (Brookfield, 2017).
3. To drive institutional strategy and quality assurance. Competence assessment in this domain can also feed upward, informing teaching and learning centers, CPD units, and QA offices. For instance, aggregated outputs from AI literacy development plans or staff-student partnership reflections can help institutions identify gaps, priorities, and emergent risks—thus closing the loop between classroom innovation and institutional governance (Ehlers, 2020).

4.2 Risks of Non-Assessment

Without assessment, institutional learning around AI teaching becomes fragmented and personality-dependent. Individual innovation is siloed; mentoring efforts are undercompensated; and ethical tensions are handled in isolation, rather than collectively.

Moreover, as AI tools become integrated into hiring, student monitoring, and evaluation systems, the absence of HE teaching staff voice in institutional discourse undermines democratic participation in technology governance (UNESCO, 2021). Assessment tools that value collaboration, dialogue, and strategic engagement help reclaim the HE teaching staff's role as a co-shaper of digital academic cultures, not just a user of institutional tools.

4.3 Assessment tools

For Type 4: AI-Driven Professional Development and Collaboration Competences, the competences focus on how HE teaching staff engage in continuous AI-related professional learning, contribute to institutional or interdisciplinary innovation, collaborate across roles or sectors, and participate in shaping responsible AI teaching cultures. Each assessment method is presented below with a short word narrative description, followed by a practical example and rubric elements. In total 20 assessment tools are proposed. More specifically:

1. AI Teaching Innovation Showcase

This method invites HE teaching staff to document and present a specific AI-related innovation they've developed, piloted, or adapted in their teaching practice. The innovation may be pedagogical (e.g., a novel AI use in formative feedback), curricular (e.g., an interdisciplinary unit), or procedural (e.g., a peer-review process involving AI). The showcase includes:

1. A description of the innovation
2. The rationale and context for development
3. Evidence of impact (student feedback, analytics, reflection)
4. Future directions and transferability

This method positions the HE teaching staff as a practitioner-researcher and disseminator of good practice.

Example rubric criteria:

- Clarity and purpose: Innovation is pedagogically grounded and well-articulated
- Reflection on process: Includes what worked, what didn't, and why
- Collaborative insight: Acknowledges contributions or partnerships
- Scalability: Has potential for adaptation beyond one course

Example: A lecturer co-develops a multilingual writing bot that helps students rewrite thesis statements in varied rhetorical registers. They present student examples, a growth rubric, and a plan to share the tool at a faculty workshop.

2. Peer Coaching Portfolio on AI Use

HE teaching staff document a process in which they mentored or were mentored by a colleague in developing AI-enhanced teaching strategies. This portfolio includes:

1. Meeting notes or reflective entries
2. Co-developed materials or insights
3. Feedback exchanged
4. A summary of growth and shifts in perspective

This method values social-professional learning and reciprocal development.

Example rubric criteria:

- Authenticity: Evidence of real dialogue and joint exploration
- Knowledge exchange: Demonstrates movement in both directions
- Mentorship quality: Reflection shows awareness of peer learning dynamics
- AI integration: Focus remains on supporting ethical, effective AI teaching use

Example: A humanities lecturer mentors a colleague in digital education on using AI to support argument mapping. They later switch roles to explore accessibility enhancements. The portfolio includes annotated slide decks, Slack exchanges, and a reflection on vulnerability in cross-disciplinary mentoring.

3. Institutional Strategy Analysis and Response

HE teaching staff select a published institutional strategy on AI (teaching-focused or broader) and write a critical response from their role as an HE teaching staff. They analyze:

1. Strategic priorities and assumptions

2. Alignment or misalignment with classroom realities
3. Opportunities for HE teaching staff involvement
4. Potential risks, blind spots, or missing voices

They conclude with a set of recommendations or an HE teaching staff advocacy brief.

Example rubric criteria:

- Strategic literacy: Understands institutional framing and policy discourse
- Pedagogical relevance: Relates strategy to lived teaching experience
- Critical distance: Can question tone, omissions, or power relations
- Constructive engagement: Offers practical, reasoned suggestions

Example: A faculty member critiques their university's strategy that heavily emphasizes AI infrastructure and efficiency. They propose a parallel stream on pedagogy, inclusive AI training, and a co-designed AI code of classroom practice.

4. Collaborative Interdisciplinary Design Proposal

This method requires HE teaching staff to co-create a teaching proposal with a colleague from a different discipline or unit, centered on AI integration. The proposal includes:

1. A shared problem or pedagogical opportunity
2. Joint learning outcomes
3. Proposed AI tools and learning activities
4. Reflection on interdisciplinary challenges and benefits

The emphasis is not on a polished product but on process, negotiation, and mutual understanding.

Example rubric criteria:

- Interdisciplinary insight: Proposal reflects genuine disciplinary synthesis
- Collaboration reflection: Documents how differences were managed
- AI creativity: Uses AI in ways that respect both fields' values
- Pedagogical coherence: Learning experience is well-structured

Example: A nursing HE teaching staff and a data science lecturer design a module where students critique health algorithm predictions using patient narratives. They reflect on how each discipline values different forms of evidence, and how this shaped the assessment.

5. AI Teaching Leadership Reflection

In this reflective method, HE teaching staff articulate their emerging role as AI literacy leaders—formally (e.g., as trainers, conveners) or informally (e.g., modeling, peer influence). The reflection covers:

1. What leadership means in the context of AI and teaching
2. Key tensions or ethical moments encountered
3. How they influence others while continuing to learn
4. Aspirations for sustaining a culture of responsible AI practice

Example rubric criteria:

- Leadership humility: Avoids framing as mastery or evangelism

- Self-awareness: Reflection on positionality and influence
- Responsibility frame: Views leadership as ethical stewardship
- Institutional awareness: Understands enablers and constraints

Example: A part-time lecturer reflects on how their willingness to share AI experiments with colleagues has shifted perceptions in their department. They discuss fear, excitement, and the burden of "explaining AI," and commit to creating a shared resource hub for the teaching team.

6. AI Professional Learning Journal

This method involves maintaining a structured journal throughout a professional development experience focused on AI in education—such as a course, seminar series, MOOC, or self-directed study. Entries should reflect on:

1. Key insights and surprises from each learning encounter
2. Application or experimentation in practice
3. Shifts in thinking about AI, pedagogy, or ethics
4. Frustrations or areas of uncertainty

The journal culminates in a synthesis statement and a set of personal or institutional recommendations.

Example rubric criteria:

- Reflective depth: Goes beyond summarizing content to interrogate meaning
- Application to context: Links learning to real teaching situations
- Critical stance: Identifies gaps, tensions, or emerging challenges
- Growth evidence: Shows a clear trajectory of thought and development

Example: A biology lecturer records their reactions to sessions on algorithmic bias, student surveillance, and inclusive design. They reflect on how little they'd previously considered learner agency and decide to revise their analytics use to include opt-in features and student commentaries on engagement data.

7. Teaching Innovation Pitch (With Stakeholder Feedback)

In this performance-based method, HE teaching staff prepare a brief, persuasive pitch for an AI-enhanced teaching innovation they want to implement. The pitch is delivered to a mock or real stakeholder audience (e.g., department chairs, student reps, IT staff), followed by feedback and a revision of the proposal. This method builds communicative confidence, responsiveness to diverse perspectives, and iterative planning.

1. Pitch components typically include:
2. The innovation and problem it solves
3. Learning benefits and ethical considerations
4. Required resources or support
5. Anticipated student impact

Example rubric criteria:

- Clarity and impact: Message is compelling and well-scoped
- Audience sensitivity: Tailored to institutional or stakeholder interests

- Feedback integration: Responds meaningfully to critiques
- Pedagogical credibility: Grounded in sound teaching principles

Example: A lecturer proposes integrating an AI-powered multilingual assistant into tutorials. Student stakeholders ask about misinterpretations; admin queries data privacy. In response, the HE teaching staff modifies the plan to include student feedback loops and open-source alternatives vetted by IT.

8. AI Collaboration Network Map

HE teaching staff map their existing and aspirational professional networks related to AI and teaching. They identify:

1. Individuals, teams, or communities they currently engage with (e.g., co-teachers, researchers, AI vendors, learning technologists)
2. Areas of knowledge and practice represented
3. Gaps or silos
4. Opportunities for deeper, more diverse collaboration

They submit the visual map plus a narrative that reflects on:

– What professional collaboration means in the AI age
– How power, discipline, or access shape who is included or excluded
– Plans for initiating new connections or bridging gaps

Example rubric criteria:

- Network diversity: Map shows varied voices and roles
- Collaborative intentionality: Connections are analyzed, not just listed
- Equity awareness: Notes who is missing and why
- Next steps: Includes clear, inclusive action plans

Example: A lecturer realizes their AI learning is mostly peer-driven and discipline-bound. They identify a lack of student co-creators, tech accessibility specialists, and global South HE teaching staff. They propose a series of inclusive online dialogues co-moderated with student leaders.

9. AI Teaching Culture Case Study

This method involves writing an analytical narrative that explores how a particular academic department, faculty, or institutional unit is evolving (or resisting) AI integration in teaching. The case study can include:

1. Interviews or surveys with colleagues
2. Observation of formal or informal practices
3. Review of documentation, policy, or communications
4. Analysis of culture, norms, fears, innovations, and language

The aim is to make visible how change around AI is (or isn't) happening and what HE teaching staff can do to shape it.

Example rubric criteria:

- Cultural insight: Captures tone, values, and friction points
- Empirical grounding: Draws on real voices or observations

- Actionable findings: Includes suggestions for shifting the culture
- Ethical framing: Sensitive to emotion, fear, power, and positionality

Example: A lecturer investigates their faculty's reluctance to adopt AI teaching tools, finding that lack of training, distrust in automation, and fear of student disengagement are key barriers. They recommend peer-led pilot programs, opt-in low-risk experiments, and storytelling from AI-curious HE teaching staff.

10. Cross-Functional Collaboration Reflection

HE teaching staff participate in a teaching-focused collaboration with individuals from outside the academic staff cohort—such as learning designers, IT support, accessibility services, librarians, or students. The goal is to co-plan or co-deliver an AI-enhanced learning activity, resource, or policy draft. The reflection includes:

1. Roles and contributions of each party
2. Challenges and successes in communication or alignment
3. Lessons learned about power, expertise, and cross-functional co-ownership
4. A plan for sustaining or scaling the partnership

Example rubric criteria:

- Partnership authenticity: Collaboration involved real negotiation and contribution
- Critical humility: Reflection on one's own blind spots or assumptions
- Interdependence insight: Values all participants' expertise
- Innovation synthesis: Resulting artefact reflects shared thinking

Example: An HE teaching staff partners with an accessibility advisor to design a chatbot for asynchronous tutoring. The HE teaching staff focuses on pedagogical structure, while the advisor critiques the bot's language register and proposes adaptations for neurodiverse learners. The result is a redesigned student-led feedback loop integrated into the platform.

11. Faculty AI Teaching Circle Documentation

In this method, HE teaching staff organize or participate in a series of structured peer-led discussions—a "teaching circle"—focused on AI in higher education. The group meets regularly to share dilemmas, tools, trials, and ideas. The assessment involves documenting:

1. Key discussion themes and insights
2. Shifts in beliefs or practices
3. Resources shared or co-created
4. Reflections on group dynamics and outcomes

This method fosters relational professionalism, distributed leadership, and learning community development.

Example rubric criteria:

- Participation evidence: Contributions are consistent and substantive
- Insight depth: Documents learning across social and professional lines
- Collaborative growth: Acknowledges knowledge built through dialogue
- Dissemination: Identifies how learning is shared beyond the circle

Example: A group of lecturers from different disciplines meets monthly to discuss AI's role in assessment redesign. They co-author a shared FAQ document on AI-assisted feedback for use in faculty development and reflect on their evolving trust in AI-human pedagogical partnerships.

12. Institutional AI Policy Commentary from the Classroom

HE teaching staff write a brief, accessible commentary addressed to senior leadership, analyzing how current or planned institutional AI policies affect day-to-day teaching realities. They ground their commentary in:

1. Specific teaching examples (e.g., student feedback, tool use)
2. Observed gaps or inconsistencies
3. Risks of policy disconnect from practice
4. Suggestions for policy refinement or inclusive implementation

This method positions HE teaching staff as change agents and institutional translators.

Example rubric criteria:

- Classroom grounding: Examples are concrete and authentic
- Policy literacy: Understands strategic documents and language
- Bridge-building tone: Commentary invites conversation, not conflict
- Inclusive advocacy: Elevates student and peer experiences

Example: A writing instructor critiques the university's blanket policy on AI detection tools. They note how the tool penalizes multilingual phrasing and propose a layered system that combines human review, student training, and appeals processes. Their commentary is later used to initiate a faculty-wide consultation.

13. Teaching-Learning Artifact Curation with AI Rationale

This assessment invites HE teaching staff to curate 3–5 artefacts from their teaching (e.g., lesson plans, activities, rubrics, student work samples) that involved AI in some way. For each, they must:

1. Explain how and why AI was involved
2. Reflect on what they learned from the implementation
3. Note any ethical or collaborative implications
4. Consider what they would do differently next time

This method reinforces iterative design thinking and digital pedagogical awareness.

Example rubric criteria:

- Artefact diversity: Materials span stages of teaching and assessment
- Reflection quality: Shows critical analysis, not just narration
- Transferability: Curator considers how others might learn from these artefacts
- Risk-awareness: Notes limitations, challenges, or moments of failure

Example: A lecturer curates an assignment brief using a chatbot for early-stage brainstorming, a peer feedback cycle mediated by AI, and a rubric partially auto-generated. Their reflection critiques the lack of nuance in the AI's tone and their subsequent intervention to reframe the task.

14. Conference or Symposium Proposal on AI Teaching Practice

HE teaching staff draft a formal proposal to present at an academic conference, teaching and learning symposium, or institutional forum. The proposal includes:

1. A clear title and abstract
2. Contextual framing of the AI teaching issue or innovation
3. Evidence of impact, experimentation, or theoretical grounding
4. Target audience and format (e.g., workshop, lightning talk, poster)

The focus is on scholarly communication and professional dissemination of AI pedagogy.

Example rubric criteria:

- Clarity and coherence: Proposal is well-structured and engaging
- Relevance: Topic addresses timely and field-relevant challenges
- Evidence use: Supported by experience, student voice, or data
- Ethical reflection: Not presented as a miracle solution

Example: A lecturer proposes a session titled “Reframing Reflection with AI: Student Narratives as Data.” They aim to share how AI-generated learning summaries helped students engage with their own metacognition, and how they modified the tool to avoid erasing cultural nuance.

15. Shared Resource Bank Contribution and Justification

HE teaching staff contribute an original resource to a shared AI teaching repository, such as:

1. A prompt set for AI-assisted writing
2. A rubric tailored for AI-moderated dialogue
3. An accessibility guide for configuring AI interfaces
4. A checklist for inclusive AI syllabus design

They must also write a brief rationale:

- Explaining its purpose and context
- Justifying its design choices
- Identifying ethical concerns or user caveats
- Suggesting improvements or extensions

This method builds a culture of open educational practice and critical design.

Example rubric criteria:

- Resource utility: Practical, adaptable, and user-oriented
- Justification clarity: Rationale is coherent and evidence-informed
- Ethical anchoring: Includes a clear values statement
- Community orientation: Invites feedback, remixing, or dialogue

Example: An HE teaching staff uploads a worksheet titled “When to Trust AI in Feedback: A Student Decision Tree.” The resource is designed for use in first-year seminars, and the accompanying note explains how it emerged from student confusion around AI comments on tone and originality.

16. AI Pedagogy "Lessons Learned" Narrative

HE teaching staff write a retrospective narrative recounting their journey with AI in teaching and how their understanding, values, and practices have evolved over time. The narrative focuses on:

1. Key turning points (e.g., tool discovery, conflict, success)
2. Personal shifts in confidence, ethics, or imagination
3. Lessons learned and passed on to others
4. Hopes or questions about the future of AI in education

This method humanizes AI integration, counters techno-solutionism, and reinforces reflective professionalism.

Example rubric criteria:

- Narrative authenticity: Story feels personal, grounded, and reflective
- Critical learning: Key insights are surfaced and analyzed
- Peer relevance: HE teaching staff speaks to the challenges others may face
- Forward-looking stance: Ends with clear intentions or curiosity

Example: A lecturer narrates how initial enthusiasm for AI writing tools led to overuse, student disengagement, and a loss of voice in assessments. After redesigning tasks with collaborative critique and AI transparency, they regained trust. Their closing statement commits to "never teaching about AI without also teaching through ethics."

17. Institutional Co-Design Lab Participation Report

In this method, HE teaching staff join a working group or "design lab" focused on AI in teaching—often organized by a teaching center, digital education unit, or faculty committee. The assessment involves:

1. Documenting the process of collective design or policy development
2. Reflecting on group dynamics, expertise sharing, and decision-making
3. Analyzing their own contribution and learning
4. Offering suggestions for how such labs can be more inclusive, impactful, or sustained

This method encourages collaborative governance and participatory innovation.

Example rubric criteria:

- Process awareness: Clear understanding of collaboration stages
- Voice equity: Reflection attends to power dynamics and inclusion
- Learning evidence: Demonstrates new insights gained from peers
- Sustainability mindset: Thinks beyond one-off participation

Example: A faculty member joins a co-design sprint on AI grading ethics. They contribute case examples from their course and help refine a draft institutional protocol. Their report questions why adjuncts and students weren't involved and proposes follow-up mixed-role workshops.

18. AI Literacy Capacity-Building Plan

This practical method tasks HE teaching staff with designing a plan to improve AI teaching literacy within their department, school, or team. The plan should include:

1. Learning goals for the group (e.g., ethical awareness, tool fluency, design skills)
2. Delivery mechanisms (e.g., workshops, peer pairings, shared readings)
3. Resource and support needs
4. Evaluation and follow-up strategies

This method assesses leadership-in-practice, planning skills, and ethical framing of professional development.

Example rubric criteria:

- Coherence and clarity: Plan is logically structured and context-aware
- Accessibility: Activities suit different comfort and experience levels
- Equity and inclusion: Efforts are made to involve marginalized or cautious voices
- Accountability: Includes reflection, feedback, and adjustment pathways

Example: A digital education lead designs a 3-stage learning plan: (1) a low-stakes AI sandbox week, (2) cross-disciplinary buddy teams, and (3) a feedback wall where staff anonymously share tool risks and surprises. They propose embedding this cycle into annual CPD structures.

19. Student-Staff AI Partnership Case Reflection

This method documents a project or sustained initiative where HE teaching staff collaborated with students as co-researchers, testers, or co-designers in AI-enhanced teaching. The reflection covers:

1. How students were selected and supported
2. What roles they played
3. What was learned from student knowledge or concerns
4. How this changed the HE teaching staff's view of AI and authority

This method supports ethical co-creation, intergenerational insight, and shared innovation.

Example rubric criteria:

- Authentic partnership: Students had real input and influence
- Critical reciprocity: Both HE teaching staff and students learned from one another
- Transparency and care: Power and ethical dynamics are acknowledged
- Institutional translation: HE teaching staff reflects on how to make this model sustainable

Example: A faculty member co-designs an AI ethics microcourse with student reps. Student critiques of framing language ("AI should be used responsibly") shift the course tone to include institutional accountability and student agency. The final reflection explores how power can be co-held and how student insight challenges "expert" assumptions.

20. AI Teaching Philosophy Statement

This culminating assessment asks HE teaching staff to write a statement articulating their teaching philosophy as it relates to AI. This is not a generic document, but a values-driven narrative that reflects:

1. Core beliefs about learning, equity, and technological mediation
2. How AI influences or reframes their teaching practice
3. Where they draw lines (what they will or won't do with AI)
4. Commitments to ongoing inquiry, critique, and change

This statement can be used in teaching dossiers, leadership applications, or faculty development contexts.

Example rubric criteria:

- Conceptual depth: Links practice with ethical and pedagogical frameworks

- Position clarity: Expresses boundaries, not just enthusiasm
- Integration: AI is framed as part of a broader teaching identity
- Inspirational value: Statement invites dialogue and reflection

Example: An HE teaching staff writes, “I teach with AI, not through AI. I believe every tool must serve the relationship between teacher, student, and knowledge. I use AI to scaffold, provoke, and support—but never to judge, exclude, or automate the heart of learning. My AI pedagogy is one of care, transparency, and shared authorship.”

Potential Usage of the Proposed Assessment Tools: A Small Practical Guide

Moving from Theory to Practice

The WP2-IDEAL repository of assessment tools offers higher education (HE) teaching staff a sophisticated menu of possibilities for evaluating and developing AI-related competences. However, recognizing the value of these tools is only the first step; actualizing their potential requires strategic, context-sensitive application.

This small guide aims to translate the IDEAL assessment framework from concept to practice, illustrating how HE teaching staff, academic developers, instructional designers, and institutional leaders can meaningfully deploy these tools. Practical examples will be provided throughout, showing how specific assessment activities can be adapted to different teaching contexts, technological ecosystems, and professional development goals. The fundamental principle underpinning this guide is pragmatism: no institution or educator should attempt to use all tools at once. Rather, the objective is thoughtful selection, incremental integration, and reflective iteration.

1. Using Assessment Tools for Individual Professional Development

One of the most direct applications of the IDEAL tools is at the individual level: supporting HE teaching staff in their ongoing journey to more critically and effectively integrate AI into their teaching.

Example 1: AI Usage Reflection Diary for Early Career Lecturers

- Scenario: A newly appointed lecturer in Business Studies has minimal experience with AI tools but is required to teach a blended course that includes predictive analytics.
- Usage: The lecturer uses the AI Usage Reflection Diary over one semester, maintaining weekly entries about successes, challenges, student reactions, and ethical dilemmas encountered when deploying AI analytics platforms.
- Impact: Through structured reflection, the lecturer identifies over-reliance on predictive dashboards and shifts pedagogical strategies mid-semester to balance AI insights with student-driven formative assessments.
- Tip: Reflection diaries work best when coupled with coaching or peer discussion groups, avoiding isolated or superficial journaling.

Example 2: Instructional Redesign Commentary for Mid-Career Faculty

- Scenario: An experienced Engineering professor wants to update an outdated course module on systems design.
- Usage: They engage in an Instructional Redesign Commentary task, modifying the module to include an AI simulation tool for real-time stress testing. The redesign is documented alongside the original version, with a detailed justification of AI's pedagogical role.
- Impact: This structured exercise deepens the professor's intentionality, ensuring that AI adoption enhances inquiry-based learning rather than simply adding technological novelty.
- Tip: Pair redesign tasks with structured peer review to gain multiple perspectives on improvements.

2. Using Assessment Tools at the Course and Teaching Team Level

Beyond individual development, the IDEAL assessment tools are highly valuable for redesigning entire courses, modules, and collaborative teaching practices—especially in contexts where AI is becoming an integral part of learning design and delivery.

Example 3: AI-Infused Syllabus Development for Course Overhaul

- Scenario: A multidisciplinary team is redesigning an undergraduate course titled "Introduction to Social Data Analysis," with the goal of embedding AI-supported learning from day one.
- Usage: The team employs the AI-Infused Syllabus Development Task. Together, they craft new learning outcomes that reflect AI literacy, embed AI-supported tasks (e.g., using natural language processing tools for sentiment analysis), and add transparency statements about data ethics and student consent.
- Impact: Students not only use AI tools but also critically interrogate them, leading to improved engagement and ethical awareness.
- Tip: Use collaborative syllabus design as a professional learning experience for teaching teams—not just as an administrative necessity.

Example 4: Peer Feedback Simulation with AI Tools

- Scenario: A Literature course includes substantial peer review of student essays. The teaching team wants to introduce an AI-assisted writing feedback tool but is concerned about diminishing human judgment.
- Usage: They conduct a Peer Feedback Simulation, where instructors first pilot the AI tool among themselves, simulate student experiences, and reflect on tool biases, pacing, and affective dynamics.
- Impact: Based on simulation outcomes, the team redesigns the peer review guidelines: students use AI suggestions only as secondary prompts, with human review remaining primary.
- Tip: Before unleashing AI on students, always test-run in controlled simulations among staff. You'll be surprised how much "invisible" friction AI introduces.

Example 5: Collaborative AI Curriculum Jam

- Scenario: A university wants to foster interdisciplinary teaching modules around "AI and Society," involving staff from Law, Computer Science, and Sociology.
- Usage: They organize a Collaborative AI Curriculum Jam, where each participant contributes AI-related activities from their disciplinary perspective. The result is a coherent mini-program combining technical, ethical, and societal insights.
- Impact: Students receive a richer, more critical view of AI, transcending siloed technical narratives.
- Tip: Set explicit ground rules before curriculum jams: prioritize inclusivity, criticality, and student-centered outcomes over flashy AI tool showcases.

3. Using Assessment Tools for Institutional Development and Quality Assurance (QA)

At the macro level, the IDEAL assessment tools can serve not only individual or course development, but also strategic institutional goals—such as AI readiness, quality assurance (QA) alignment, and professional development (PD) planning.

Example 6: Curriculum Inclusiveness Audit for Program Accreditation

- Scenario: An institution preparing for program reaccreditation needs to demonstrate commitment to digital inclusion, ethical AI use, and accessibility across all degree offerings.

- Usage: Program coordinators conduct a Curriculum Inclusiveness Audit (AI Edition) across multiple courses, identifying gaps where AI integration might exacerbate exclusion (e.g., adaptive tools without multilingual support).
- Impact: Findings inform curriculum revisions and provide evidence for accreditation dossiers, showcasing proactive risk management rather than reactive correction.
- Tip: Frame audits as opportunities for innovation and reflection, not just compliance exercises. Otherwise, staff will treat them defensively.

Example 7: Teaching Excellence Awards Based on AI Competence Assessments

- Scenario: A university wants to launch a new award recognizing excellence in AI-supported, ethical, and inclusive teaching.
- Usage: Applicants must submit a portfolio based on selected IDEAL assessment tools (e.g., AI-Enhanced Lesson Design Task, Bias Reflection Exercise, AI Resilience Stress Test), evidencing intentional AI integration and critical reflexivity.
- Impact: The award system shifts focus from "using AI" to "using AI responsibly," signaling institutional values and incentivizing substantive engagement.
- Tip: Ensure evaluation panels include ethical, accessibility, and pedagogy experts—not just tech enthusiasts. Otherwise, techno-solutionist applications will dominate.

Example 8: Departmental AI Literacy Mapping

- Scenario: A Faculty of Humanities suspects that AI adoption varies wildly across its departments but lacks concrete data.
- Usage: They conduct a voluntary survey using simplified versions of IDEAL self-assessment tasks, such as short scenario reflections (e.g., "Describe an AI you use or refuse to use, and why.").
- Impact: Heat maps and narrative summaries help leadership identify where targeted support or peer learning networks are most urgently needed.
- Tip: Never use initial mappings for performance appraisal. They are diagnostic tools, not surveillance instruments.

4. Using Assessment Tools in Continuous Professional Development (CPD) Programs

Professional development initiatives aimed at AI integration must balance ambition with realism. The IDEAL tools offer modular and adaptable resources for CPD design—especially when programs are scaffolded to support reflection, experimentation, and skill transfer.

Example 9: Modular CPD Workshop Series Using IDEAL Tools

- Scenario: A Center for Teaching and Learning designs a six-month CPD program titled "AI for Reflective Educators."
- Usage: Each month focuses on one competence type, using 2–3 selected IDEAL assessment tools for hands-on exploration. For instance:
  - Month 1: Pedagogical AI Integration → AI-Enhanced Lesson Design Task
  - Month 2: Ethical AI Use → Student Data Ethics Policy Memo
  - Month 3: AI-Enhanced Curriculum Design → Backward Design Plan with AI Integration
- Impact: Participants incrementally build not just familiarity but pedagogical judgment regarding AI use.
- Tip: Offer tangible outputs (badges, certificates) linked to authentic artefacts, not just workshop attendance.

Example 10: Micro-Credentialing Based on IDEAL Assessment Artefacts

- Scenario: An institution wants to offer micro-credentials in "AI Literacy for Higher Education Teaching."
- Usage: Credentialing is based on submission and peer-reviewed evaluation of IDEAL assessment artefacts (e.g., Reflection Diaries, Ethical Dilemma Case Analyses, AI Personalization Audits).
- Impact: Teaching staff develop portfolios of critical practice, gaining recognition for competence beyond "hours logged."
- Tip: Keep credential rubrics transparent, emphasizing developmental feedback over summative judgment.

Example 11: "AI Ethics Clinics" for Faculty

- Scenario: Growing concerns about algorithmic bias and student surveillance prompt an institution to establish AI Ethics Clinics.
- Usage: Clinics use IDEAL tools such as the AI Bias Role-Play and the "Invisible Student" Scenario Design to facilitate live discussions, case analyses, and reflective exercises.
- Impact: Faculty move beyond abstract concerns to concrete, situated ethical problem-solving.
- Tip: Clinics must be safe spaces: no recording, no punitive consequences for "wrong" answers. Ethics thrives on trust, not compliance.

Final Practical Tips for Successful Deployment

1. Start small, grow organically: Launch with pilot groups and a handful of tools.
2. Customize without distorting: Adapt assessment tasks to fit local conditions, but retain their critical backbone.
3. Integrate reflection systematically: Make self-assessment and peer dialogue non-optional elements.
4. Honor context: Respect disciplinary diversity, cultural differences, and varying digital literacies.
5. Guard against instrumentalization: Resist the temptation to turn ethical and inclusive competences into mere KPI metrics.

Closing Reflection

The WP2-IDEAL assessment tools invite higher education into an uncomfortable, necessary confrontation: not merely with how we teach, but with why and for whom we teach in an increasingly AI-mediated world.

At first glance, the array of exercises, reflections, audits, and redesign tasks might seem overwhelming—just another technocratic addition to a sector already drowning in metrics and compliance frameworks. But to reduce the IDEAL tools to instruments of administrative oversight would be to fundamentally misunderstand their latent power.

At their core, the IDEAL tools resist both technological determinism and pedagogical nostalgia. They do not assume that AI is an inevitable savior of education, nor do they yearn for a pre-digital golden age. Instead, they position educators—and by extension, educational institutions—as active stewards of change, capable of shaping the futures that AI technologies might otherwise dictate by default.

This is no small responsibility.

When HE teaching staff engage seriously with exercises like the Bias Reflection Exercise, the Invisible Student Scenario, or the Ethical Dilemma Case Analysis, they are not just demonstrating competence. They are enacting a form of educational citizenship: questioning the often-invisible values embedded

within systems; advocating for marginalized learners who might otherwise be erased by algorithmic blindness; modeling for students what it means to be an ethical actor in complex sociotechnical systems.
The IDEAL framework, then, is not primarily about producing "better" users of AI. It is about nurturing critical pedagogues who can navigate, contest, and sometimes reject technological affordances that are misaligned with humanistic educational values.

This orientation has profound implications.
First, it redefines what counts as "success" in AI adoption.
Success is not measured by how many AI tools are used in a course, nor by how quickly a department can automate feedback or grading processes. Success is measured by the degree to which AI integration deepens reflection, supports genuine learning, respects learner diversity, and amplifies—not replaces—the human relational core of education.
For example, an instructor who decides not to use an AI plagiarism detector after a Red Flags Audit of its surveillance implications, and instead redesigns their assessments around authentic, process-based tasks, is demonstrating success—even if no AI is deployed at all.

Competence, in this vision, includes refusal.
Competence includes saying "no" when "yes" would be easier but less ethical.
Second, it positions assessment not as a judgment, but as an act of care.
Traditional assessment regimes often function as gatekeeping mechanisms: Who passes? Who fails? Who gets recognized? Who gets punished?

The IDEAL tools propose a different ethic.
Here, assessment is a site for dialogue, self-discovery, and mutual accountability. When faculty engage in tools like the Teaching with Transparency Letter or the AI Personalization Audit, they are not merely fulfilling a bureaucratic obligation; they are entering into new relational contracts with their students, colleagues, and institutions.

Assessment, properly understood, is not surveillance.
First, it is stewardship.
Second, it is the ongoing cultivation of ethical discernment, technological humility, and pedagogical imagination.
Third, it warns against instrumentalization.
There is a real danger—especially in audit-obsessed educational cultures—that the IDEAL assessments could be co-opted into yet another set of KPIs or ranking mechanisms. Institutions under reputational or financial pressure may be tempted to use ethical reflection exercises to produce attractive documentation for accreditation bodies or PR campaigns, without any real commitment to structural change. This would not merely dilute the power of the IDEAL tools; it would actively betray their foundational ethos. To guard against this, institutions must:

- Embed reflective dialogue into assessment processes, not just require artefacts.
- Protect spaces for critical dissent, where AI skepticism is treated as a legitimate, even necessary, stance.
- Reward risk-taking and ethical complexity, not just technological fluency or "innovation."

Otherwise, we risk producing a generation of educators who are highly skilled at saying the "right" things about AI, while silently perpetuating its worst excesses.
Fourth, it demands that we rethink institutional leadership. The IDEAL tools are designed with the assumption that teaching competences matter not only at the individual level, but at the systemic

one. Institutional leaders, therefore, cannot delegate AI ethics and pedagogy to isolated departments or centers for teaching excellence. Instead, leadership must model the very competences IDEAL promotes:

- Transparent decision-making about AI procurement and deployment.
- Critical reflection on data practices and learner autonomy.
- Willingness to adapt policies in light of ethical insights, not just technological possibilities.

In other words, leadership itself must become an educational practice—one rooted in humility, responsibility, and critical hope. Finally, it reminds us that educational futures are not pre-written. There is no algorithm that can predict what universities will—or should—become under the influence of AI. No predictive analytics dashboard can capture the messy, relational, deeply human work of teaching and learning. The IDEAL framework refuses fatalism. It insists that through deliberate assessment, reflection, and collective action, we can shape AI integration in ways that honor diversity, foster inclusion, and sustain educational integrity.

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