AI-Resistant Exams

Adapting Your Approach to Traditional Written Exams in the Age of AI

Purpose: In a moment when generative AI tools are widely accessible, designing effective and secure written exams requires new strategies. Many faculty teaching in-person are going back to traditional handwritten exams as a way to ensure academic integrity and encourage students to learn the material. For those teaching remote classes, the following practices can help you adapt traditional assessments for today's classrooms. You can also consider whether alternatives to traditional exams might be a stronger option for your class.

Steps for Implementation

1. **Familiarize Yourself With AI and Proctoring Tools**

    a. **Understand the Technology**
    Learn how proctoring software (such as Proctorio) and AI-assisted cheating methods work. Stay informed about what your students may encounter online.

    b. **Test Your Prompts**
    Try entering your own exam prompts into AI tools like ChatGPT or Google Bard. See what kind of responses are generated—this can help you spot potential vulnerabilities.

    c. **Stay Curious**
    Ask AI directly, "How would you attempt to bypass this exam?" Use these insights to refine your exam format and instructions.

2. **Maximize Student Preparation and Reduce Anxiety**

    a. **Build in Practice**
    Offer regular opportunities for practice, such as quizzes or practice questions.

    b. **Preview and Flexibility**

Provide samples or previews of exam question types, or allow students to choose from a selection of prompts.

c. **Open Book/Notes**
Permit students to bring a "cheat sheet" or a single page of notes. This is a time-honored strategy for students to study. The process of developing the page encourages their review and distillation of course concepts.

3. **Triangulate Your Assessment Measures**

a. **Oral Follow-Ups**
Pair written exams with short oral interviews or verbal follow-ups to probe understanding and ask about key reasoning behind answers.

b. **Multiple Modalities**
Assess the same learning objectives through different formats—combine exams with presentations, discussion posts, debates, or group projects. This makes it harder for AI-generated content to cover all bases and gives you a richer picture of student learning.

4. **Integrate Intentional Reflection**

a. **Structured Reflection**
Build in reflective assignments, journals, or learning surveys before and after exams to for students to think about their understanding and growth.

Instructor Planning Guide

1. **Learning Goals**
What should students be able to demonstrate without AI assistance?

2. **Exam Format**
What format will best minimize AI use and support authentic student work?

3. **Question Design**
How can I write questions that are highly specific to this course and this content (and thus harder for AI to answer effectively)?

4. **Rubrics and Grading Criteria**
   What does strong, original work look like, and how will I assess it consistently?

5. **Feedback Approach**
   How and when will I provide feedback that supports student learning?

6. **Academic Integrity**
   What steps will I take to promote and verify academic honesty?

7. **Accessibility**
   Have I considered accommodations and fair access for all students?

8. **Technology and Environment**
   What tools, settings, or support do students need to complete the exam successfully?

9. **Grading Setup in Canvas**
   Is the exam correctly categorized and weighted in Canvas?

Instructor Checklist

- ☐ I have clarified the learning goals the exam is designed to assess.
- ☐ I have selected an exam format that discourages AI-assisted completion.
- ☐ I have written questions that are specific to this course and this context.
- ☐ If appropriate, I have created and shared a grading rubric for the exam.
- ☐ If appropriate, I have incorporated integrity measures.
- ☐ I have confirmed that the exam is accessible and equitable for all students.
- ☐ I have communicated exam logistics and expectations clearly in advance.
- ☐ I have entered the exam into Canvas and confirmed assignment weight and grouping.
- ☐ I have reviewed Harvard DCE policies on grading, deadlines, and confidentiality.

Resource: Teaching with Gen AI (Harvard University-wide resource for faculty)