ANTHROP\C

AI Fluency Assignment Component Guide

This guide provides detailed descriptions of the assignment components discussed in the video, including sample instructions for students. Remember that these are components, not full assignment, and should be expanded and/or combined for use in actual assignments.

Outcome based assignment components

1. Improving AI outputs

Assessment Type: Outcome based

Focus: Discernment, Description

Deliverables: Original content with annotated critique, improved version

Overview: Students receive or generate a mediocre AI output and must transform it through AI interaction into something excellent. This component develops critical evaluation skills and the ability to guide AI toward quality outcomes through iterative refinement.

Sample Student-Facing Instructions:
"You will receive an AI-generated [essay/code/design] on [topic]. Your task is to transform this mediocre output into excellent work through systematic critique and iterative improvement with AI. First, annotate the original to identify specific weaknesses using domain-specific criteria. Then, work with AI to address each issue. Submit: (1) the original content with annotations showing identified weaknesses, and (2) the final improved version."

What Makes This Effective:

- Forces students to articulate quality standards explicitly
- Requires application of domain knowledge to identify problems
- Develops skills in guiding AI through specific improvements
- Makes evaluation criteria visible and assess-able

Variations:

- Provide outputs with different types of flaws (factual, structural, stylistic)
- Have students improve each other's AI outputs

2. Product comparison

Assessment Type: Outcome based

Focus: Delegation, Discernment

Deliverables: Multiple outputs, comparison matrix, recommendation report

Overview: Students use multiple AI systems or modes to tackle the same task, then analyze differences to understand platform capabilities and appropriate use cases. This develops platform awareness and strategic system selection skills.

Sample Student-Facing Instructions:
"Complete [specific task] using three different approaches: (1) a standard AI assistant, (2) an AI system with extended thinking/reasoning capabilities, and (3) a specialized system for your discipline. Create a comparison matrix evaluating each approach on criteria including accuracy, depth, creativity, efficiency, and appropriateness for the task. Submit: (1) outputs from all three approaches, (2) your comparison matrix showing strengths and weaknesses of each, and (3) your recommendation report"

What Makes This Effective:

- Builds concrete understanding of different AI capabilities
- Develops platform awareness through direct experience
- Creates evidence-based system selection skills
- Reveals trade-offs between different approaches

Variations:

- Builds concrete understanding of different AI capabilities
- Develops platform awareness through direct experience
- Creates evidence-based system selection skills
- Reveals trade-offs between different approaches

3. Constraint-based challenges

Assessment Type: Outcome based

Focus: Description, Delegation

Deliverables: Final product meeting constraints

Overview: Students must achieve specific output requirements through AI collaboration, developing precise communication skills and learning to navigate technical constraints while maintaining quality.

Sample Student-Facing Instructions:
"Create a [specific output] that meets these exact constraints: [specific style and content constraints]. [Bound the AI interaction if desired. E.g. max session time or length of conversation, specific system/mode, etc.] Submit: the final product that meets all specified constraints."

What Makes This Effective:

- Develops precision in AI communication
- Reveals importance of clear specifications
- Builds problem-solving skills within limitations

Variations:

- Add ethical or disciplinary constraints
- Include conflicting constraints requiring trade-offs
- Time-based constraints for real-world pressure

4. Peer product review

Assessment Type: Outcome based

Focus: Discernment, Diligence

Deliverables: Review feedback form

Overview: Students evaluate AI-assisted work created by peers against stated goals and ethical standards, developing critical evaluation skills and understanding of transparency needs.

Sample Student-Facing Instructions:
"Exchange your AI-assisted project with a partner, along with the goals that you and your partner set. Review your partner's work against their stated objectives, evaluating: (1) whether goals were achieved, (2) appropriate use of AI for the task, (3) quality of human oversight evident in the final product, and (4) adequacy of AI attribution. Submit: completed review feedback form using the provided rubric."

What Makes This Effective:

- Develops ability to evaluate AI-assisted work objectively
- Builds understanding of transparency and value-based standards
- Practices giving constructive feedback
- Reveals quality indicators through peer comparison

Variations:

- Blind review without knowing AI involvement level
- Group review sessions with discussion

Process based assignment components

1. Annotated chat logs

Assessment Type: Process based

Focus: Description, Discernment

Deliverables: Complete chat log with annotations, key moments analysis

Overview: Students submit their AI chat logs with detailed annotations identifying crucial decision points, breakthroughs, failures, and learning moments, making their thinking process visible and assess-able.

Sample Student-Facing Instructions:
"Submit your complete chat log from [project] with annotations marking: (1) turning points where your approach changed, (2) moments of insight or breakthrough, (3) failed attempts and how you recovered, (4) evolution of your communication style, and (5) development of shared context with AI. Submit: the annotated chat log."

What Makes This Effective:

- Makes invisible thinking processes visible
- Captures authentic problem-solving approaches
- Reveals communication evolution over time
- Provides rich data for process assessment

Variations:

- Focus annotations on specific competencies
- Compare early vs. late interaction patterns
- Peer and/or AI annotation of each other's logs

2. Recorded Narrations

Assessment Type: Process based

Focus: All 4 Ds

Deliverables: Screen recording with audio narration

Overview: Students record themselves working with AI in real-time, narrating their decision-making process, revealing thought processes and strategic choices as they occur.

Sample Student-Facing Instructions:
"Record your screen and audio while completing [specific task] with AI. As you work, narrate your thinking aloud: explain why you're making specific choices, what you're looking for in responses, how you're evaluating outputs, and what alternatives you're considering. Your narration should reveal your delegation decisions, description strategies, discernment criteria, and ethical considerations. Submit: a X minute recording with narration."

What Makes This Effective:

- Captures authentic, real-time decision making
- Reveals tacit knowledge and assumptions
- Shows how students actually work vs. how they report working
- Provides rich qualitative assessment data
- Can be a lot of fun

Variations:

- "Paired prompting" recordings with peer commentary
- Before/after recordings showing skill development
- Focus on specific challenging moments

3. Process playbooks

Assessment Type: Process based

Focus: All 4 Ds

Deliverables: AI-engagement strategies, conversation guides, workflow documentation

Overview: Students create personal reference guides documenting their strategies for different types of AI collaboration, building meta-cognitive awareness and transferable skills.

Sample Student-Facing Instructions:
"Develop your personal AI collaboration playbook including: (1) conversation guides for five common tasks in our field, (2) decision trees for when to use different AI systems, (3) your quality checklist for evaluating AI outputs, (4) common pitfalls and recovery strategies, and (5) ethical guidelines for your discipline. This should be a practical document you'll actually use. Include specific examples from your coursework showing each strategy in action. Submit: cleanly formatted AI collaboration playbook"

What Makes This Effective:

- Encourages systematic documentation of process
- Creates useful resource for future work
- Good bridge from Process to Reflection as it develops metacognitive awareness
- Builds professional documentation skills

Variations:

- Collaborative playbooks with classmates (you can even build a living shared document for the course)
- Discipline-specific playbook requirements

4. AI-assisted or peer-assisted debrief

Assessment Type: Process based

Focus: All 4 Ds

Deliverables: Debrief summary

Overview: Students analyze their AI collaboration process through structured discussion with either an AI assistant or peer, gaining external perspective on their practices.

Sample Student-Facing Instructions:
"Share your project chat log with [an AI partner/classmate] and engage in a structured debrief. Ask your debrief partner to help you identify: (1) positive patterns in your collaboration, (2) missed opportunities for better outcomes, (3) strengths in your method, and (4) areas for improvement. If working with a peer, compare your approaches and identify what you can learn from each other. Submit: short debrief summary."

What Makes This Effective:

- Provides external perspective on process
- Reveals blind spots in self-assessment
- Another good bridge from Process to Reflection as it develops reflective capacity
- Encourages peer learning

Variations:

- AI debrief paired with peer discussion
- Group debrief sessions
- Expert-facilitated debrief sessions

Reflection based assignment components

1. Guided inquiry

Assessment Type: Reflection-based

Focus: Variable based on questions

Deliverables: Written responses with evidence examples

Overview: Students respond to specific questions designed to promote deep reflection on their AI collaboration experience, building meta-cognitive awareness and critical thinking.

Sample Student-Facing Instructions:
"Reflect on your [project] by answering these questions: (1) Describe a moment when AI surprised you. What did this teach you about its capabilities or limitations? (2) Identify where your delegation strategy didn't work as planned. What will you do differently in the future? (3) Analyze how your communication with AI evolved over the course of the interaction. What triggered these changes? (4) Evaluate an ethical decision you had to make in the project. What values guided your choice? Submit: X word responses for each question with concrete examples from your work."

What Makes This Effective:

- Targets specific aspects of AI fluency
- Requires evidence-based reflection
- Builds critical thinking skills
- Adaptable to different contexts

Variations:

- Questions tailored to discipline
- Progressive questions across projects
- Peer-generated questions

2. Learning journal

Assessment Type: Reflection-based

Focus: All 4Ds over time

Deliverables: Weekly entries with end of term conclusion

Overview: Students maintain ongoing documentation of their AI fluency development, tracking growth, challenges, and insights across multiple interactions and projects.

Sample Student-Facing Instructions:
"Maintain a weekly learning journal documenting your AI collaboration experiences. Each entry should include: (1) what you attempted with AI this week, (2) what worked well and why, (3) what challenged you and how you responded, (4) one specific skill you improved, and (5) one question or challenge to work on next week. Every month, write a synthesis entry identifying patterns in your development and setting goals for improvement. Submit: weekly entries with conclusion added at end of term."

What Makes This Effective:

- Captures development over time
- Builds habitual reflection
- Reveals learning trajectories
- Creates rich assessment data

Variations:

- Multimedia journals with screenshots
- Collaborative journals with peer comments
- Living journals implemented as a persistent AI conversation
- Themed entries focusing on specific Ds

3. Scenarios and case-studies

Assessment Type: Reflection based

Focus: Diligence, Delegation

Deliverables: Case analysis, decision rationale, engagement recommendations

Overview: Students apply their AI fluency learning to analyze realistic scenarios or actual cases, demonstrating ability to transfer skills to new contexts.

Sample Student-Facing Instructions:
"Analyze this case: [realistic scenario involving AI collaboration dilemma]. Write a X-word analysis addressing: (1) key delegation decisions and their implications and (2) ethical considerations and transparency requirements. Propose a detailed action plan explaining how you would handle this situation, referencing specific lessons from your own AI collaboration experiences. Submit: (1) your case analysis, (2) decision rationale for your proposed approach, and (3) engagement recommendations including potential risks and mitigation strategies."

What Makes This Effective:

- Develops strategic thinking
- Builds ethical reasoning skills
- Connects theory to practice

Variations:

- Real-world case studies from news
- Discipline-specific scenarios
- Role-play different stakeholder perspectives

4. Personal policy statements

Assessment Type: Reflection based

Focus: Diligence, All 4Ds holistically

Deliverables: Policy document

Overview: Students synthesize their learning into personal frameworks for effective, efficient, ethical, and safe AI collaboration, articulating values, strategies, and standards for their future practice.

Sample Student-Facing Instructions:
"Create your personal AI collaboration policy including: (1) ethical principles guiding your AI use, (2) criteria for deciding when/how to collaborate with AI, (3) quality standards for AI-assisted work, (4) transparency commitments for different contexts, (5) boundaries you won't cross, and (6) strategies for continued learning. This should be a living document you'll actually use. Include specific examples from coursework illustrating each principle. Submit: your policy document formatted as a professional document suitable for sharing with future employers or clients."

What Makes This Effective:

- Requires deep synthesis of learning
- Builds professional identity
- Creates accountability framework
- Encourages long-term thinking

Variations:

- Collaborative policies for group work