

2026 the 12th International Conference on Information Management



EAET 2026 the 7th European Advanced Educational Technology Conference

Oxford, UK
March 27-29, 2026

Patrons



WAGENINGEN
UNIVERSITY & RESEARCH



Springer



Thinking With Machines: A Two-Phase, Neuroinclusive Study of First-Year Writers Using Generative AI

Dr. Jeanne Beatrix Law



Jeanne Beatrix Law, PhD
Professor, AI & Writing
Technologies, AAC&U Fac...



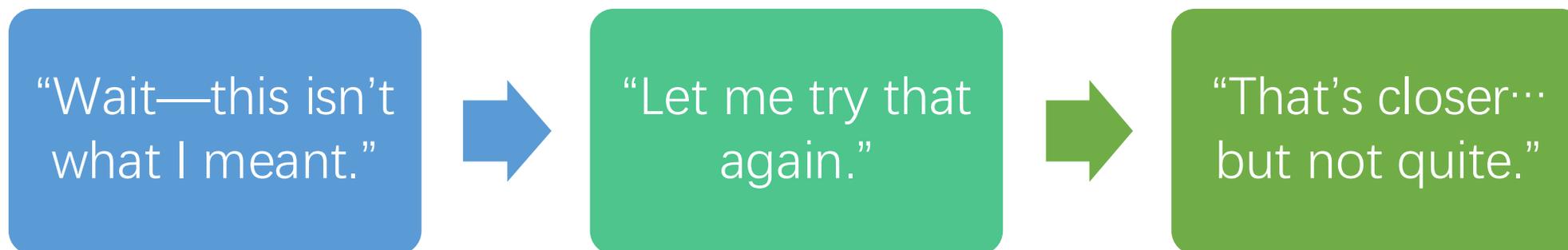
From: Kennesaw State University, U.S.

Research Area: Generative AI and Writing Process in Higher Education

Email Address: jlaw29@kennesaw.edu

Faculty Web Page: <https://facultyweb.kennesaw.edu/jlaw29/>

What if we could watch writing happen?

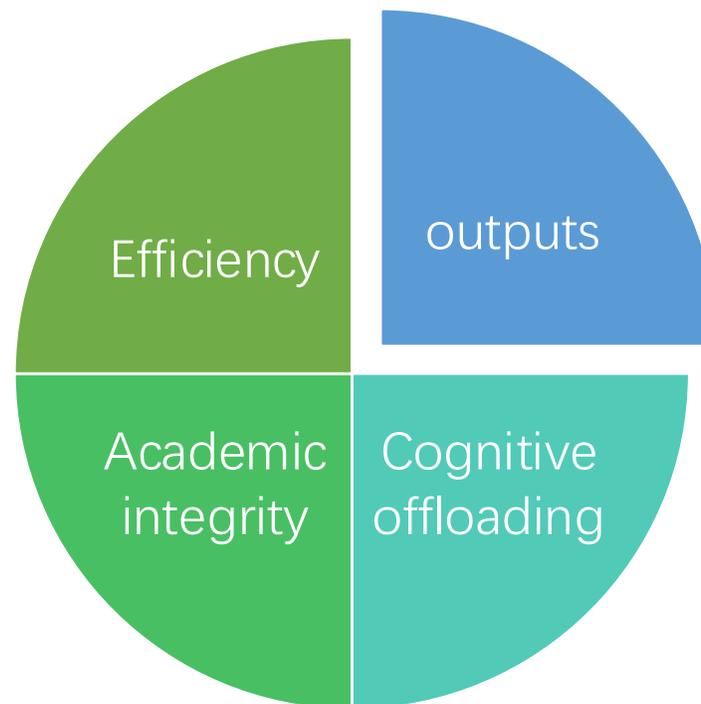


Think-Aloud Protocol (TAP), student writer using AI
Research method in which participants verbalize their thoughts while completing a task so a researcher can study their decision-making in real time with screen recordings accompanied by voice

Historical, Discipline-specific methodology: Flowers & Hayes (1988) and Risko & Gilbert (2016)

The Problem

Debates on Generative AI Use in Higher Education focus on:



But writing is a process—not just a product

Self-reports suggest efficiency, but process shows complexity

95% of
Students use
AI

94% Use AI
for assessed
work

65% Say
assessment
has changed

Higher Education Policy Institute, 2026

<https://www.hepi.ac.uk/reports/student-generative-ai-survey-2026/>

Research Questions

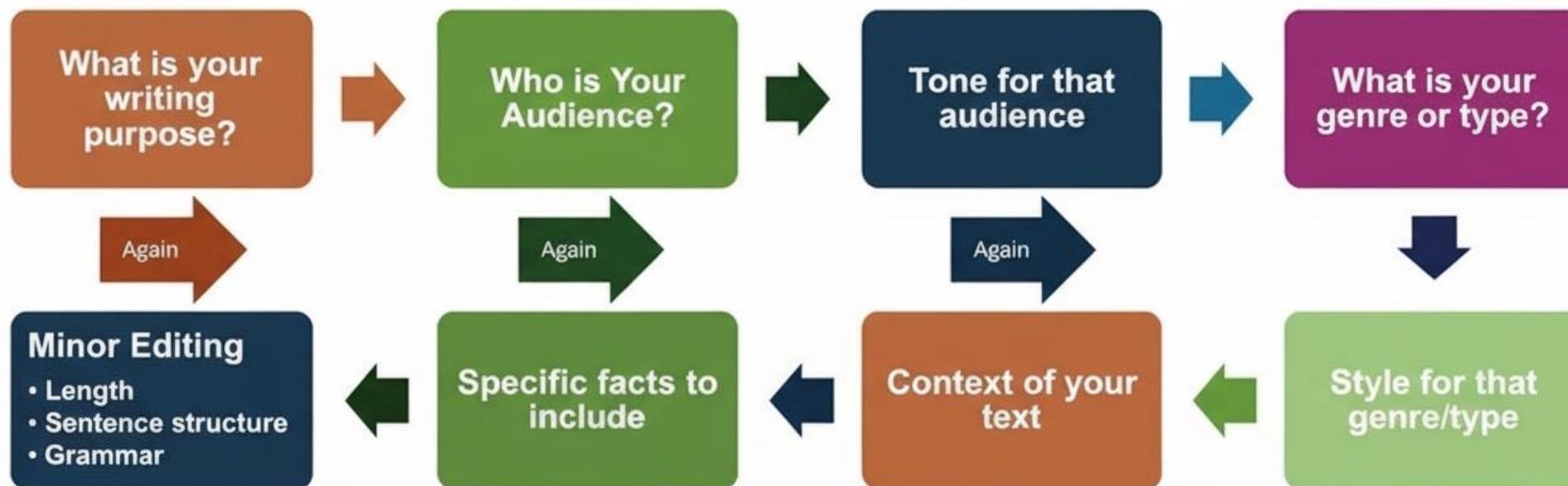


How do university student writers engage cognitively and rhetorically with AI?



What patterns emerge in prompting, revision, and decision-making?

The Writing Process



In this method, you go through each step to address the most important considerations to get an effective output from your AI Assistant. Each step influences the next.

Then, you go back to the steps you need to refine your output.

The goal is to get the most usable, accurate, relevant, and ethical output.

Study Context and Methods

Think-Aloud Protocols (TAPs) + screen-recorded writing
Focus: writer behavior in an AI-mediated environment

verbalizes
thinking

Screen + audio
recorded

Segmented into
episodes

Coded for activity,
decisions, and
outcomes

Patterns into
themes

Kennesaw State University is a public, R2 doctoral institution with high research activity and over 50,000 students, making it one of the largest universities in Georgia. Our student population is highly diverse - over half identify as students of color, and roughly 38% are first-generation college students. The pilot includes 20 first-year writers, whose demographics closely mirror the broader Kennesaw State population, allowing us to examine these patterns in a large, diverse writing context.

Finding 1: AI across the writing process

At the **participant level**:

72.2% had at least one **Plan** episode

38.9% had at least one **Draft** episode

72.2% had at least one **Revise** episode

11.1% had at least one **Edit** episode

88.9% used AI across **two or more process stages**

55.6% showed **Revise without Draft**, which is a strong sign that AI was often used to reshape existing ideas rather than simply generate first text

At the **episode level**:

50.0% were **Plan**

31.2% were **Revise**

14.6% were **Draft**

4.2% were **Edit**

Finding 2: Rhetorical prompting and enactment

Preliminary stats

From the **prompt/response** and **RPM quick check** fields:

- **16/18 (88.9%)** were coded as having **looped back**
- **Prompt Intent:**
 - **Structure: 17/18 (94.4%)**
 - **Edit: 13/18 (72.2%)**
 - **Evidence: 7/18 (38.9%)**
 - **Define: 5/18 (27.8%)**

Rhetorical dimensions evident:

- **Purpose: 13/18 (72.2%)**
- **Genre/type: 10/18 (55.6%)**
- **Style: 9/18 (50.0%)**
- **Context: 8/18 (44.4%)**
- **Facts: 6/18 (33.3%)**
- **Tone: 4/18 (22.2%)**
- **Audience: 1/18 (5.6%)**

And importantly:

11/18 (61.1%) showed **three or more RPM dimensions** in the coding pass

Finding 3: Verification, friction, and ownership

Preliminary stats

From the **core codes** and **session summaries**:

Verification stance:

14/18 (77.8%) = Mixed

3/18 (16.7%) = Skeptical

1/18 (5.6%) = Trusting

So: **17/18 (94.4%) were not fully trusting**

Other relevant codes

8/18 (44.4%) included explicit **Authorship/Ethics talk**

14/18 (77.8%) were coded with **Low workflow friction**

4/18 (22.2%) were coded with **Medium workflow friction**

Uptake:

18/18 (100%) = Adapted

0/18 = coded as pure copied uptake

Discussion

Episode quotes

A9, opening episode

“My writing is my own writing.”

A9, middle episode

“I want the actual source itself... I don't want someone else's words on the source.”

B1, opening episode

“I do not agree with some of the answers.”

B8, middle episode

“I feel like it's not my own thing.”

A18, middle episode

“They always say psychological research, but they never say specific research.”

Preliminary TAP findings suggest that verification, ownership, and friction are central to human-AI writing judgment. In many cases, discomfort with style, sourcing, or authorship does not stop the process; it redirects it.

Practical Use Cases from This Research

Pedagogy →
teach process

Assessment →
evaluate
process

Design →
guided,
accountable use

Generative AI and Neurodivergent Learners

A 2025 synthesis in [Applied Social Sciences](#) notes that around 15–20% of the population worldwide is neurodivergent.

22% of UK students have a neurodivergent diagnosis, with up to 28% identifying as neurodivergent when self-identification is included. ([HEPI](#))

Approximately 19% of EU students report limitations in their studies due to disability, health issues, or functional limitations. [EUROSTUDENT](#)

Globally, approximately 264 million students are enrolled in higher education, and cross-national surveys suggest that about one-fifth of university students report a disability, health condition, or functional limitation affecting their studies. [UNESCO](#)

Cohort B: N=49 Focus on Neurodivergent Writers

Response	n	% of total
Yes, I consider myself neurodivergent	15	30.6%
No	29	59.2%
Prefer not to say	3	6.1%
Missing / blank	2	4.1%

Recorded subtype	n	% of ND respondents
ADHD / attention differences	11	73.3%
Other neurodevelopmental difference	3	20.0%
Dysgraphia / writing differences	1	6.7%

Future Directions for Collaboration and Sharing

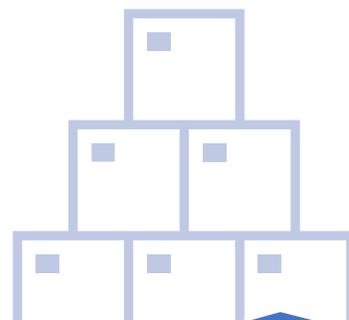


Jeanne Beatrix Law, PhD

Professor, AI & Writing Technologies, AAC&U Fac...



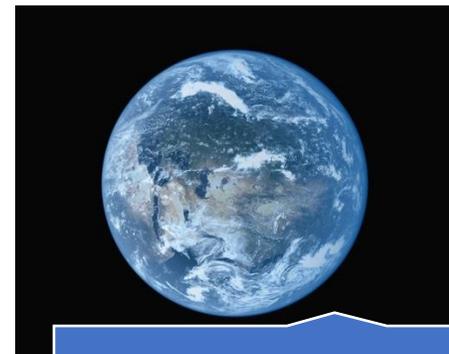
IRB-approved study design



Pre-TAP surveys, TAP protocols, and coding frameworks



Openly shared as OER / Open Access



Available for global adaptation and use