

International Symposium on Grids & Clouds (ISGC) 2024

25 March 2024

Academia Sinica, Taipei

Education Informatics Workshop:

Cyber-Physical Learning Environment to Ensure Authentic Learning

Fortified with Meta-Cognitive and Reflective Assessment

Organizer: Prof. Tosh Yamamoto, Kansai University, Japan.

AI-enhanced Writing for a *Freshman English* Course at SCU

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Agenda

Why and **How** do I incorporate AI into my *Freshman English* course?

What have I done?

Preliminary findings & implications

Preliminary findings

1. Students know little about how to give effective prompts to achieve a desired outcome
2. Thesis statement development skills don't sink in for many learners (long-term memory).
3. The interactive process (turn-taking) at ChatGPT affords learners with opportunities to reflect on their logical reasoning skills (meta-cognitive learning).

Why and How do I incorporate AI into my Freshman English course?

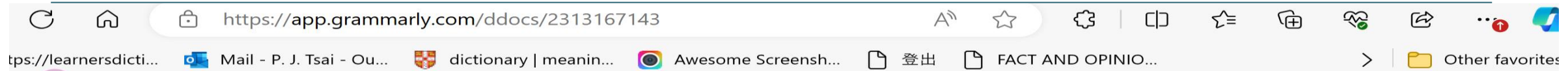
- **Action research** (fall 2023; 2024 fall)
 - **Iterative process** (planning → implementation → reflection → revisiting → replanning → implementation → reflection → ...)
 - **Instruments:** (ChatGPT-assisted) assignments, grading rubrics, learning sheets, surveys
 - **Participants:**
 - 36 non-English majors in one section of the *Freshman English* course at SCU
 - CEFR: B2
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Freshman English Assignments (Fall 2023)

	Assignment #1	Assignment #2	Assignment #3	Assignment #4
Topic	Why I love or hate Taipei	Explain why you like or dislike Soochow University	Your vision for your career 40 years from now	Use your writing in assignment # 3 (preferable) or #2 as a sample to practice giving and revising prompts in English with ChatGPT .
Genre	Explanatory paragraph writing	Explanatory sentence making	Descriptive essay	Descriptive essay
Correcting instrument	Manual labor	Manual labor	Grammarly	Manual labor
AI incorporation	N/A	N/A	AI grading	Learners' use of ChatGPT
Grading	Manual labor	Manual labor	Grammarly	Manual labor
Benefits	<ol style="list-style-type: none"> Hear the writer's voice Grading with a human touch 	<ol style="list-style-type: none"> Hear the writer's voice Grading with a human touch 	Comprehensive	Polish meta-cognitive skills of writing (e.g. reasoning skills)
Drawbacks	<ol style="list-style-type: none"> Impressionistic grading Drawn to grammatical errors 	<ol style="list-style-type: none"> Impressionistic grading Drawn to grammatical errors 	<ol style="list-style-type: none"> Overwhelming corrections Do students care? Zero tolerance of non-target forms <u>Impersonal (writer's tone?)</u> 	<ol style="list-style-type: none"> A paradigm shift for learners Authenticity issues (too good?) Zero-tolerance of non-target forms

Grammarly corrected samples

..\112-1 Freshman English\Automark samples\Grammarly 李昱寬.pdf



蔡昀蓁

person. A qualified psychological counselor should be a pleasant, well-adapted person who can properly handle his own psychological conflicts to ensure the smooth progress of his work of helping others; secondly, he should be a person who is willing to help others. Only a helpful person can bring warmth to clients in the counseling relationship and create a safe and free atmosphere. Third, he should be a serious and responsible person. Able to listen patiently to clients' narratives without being distracted.

My Voice 1,993 prompts

whether the writer sounds impersonal

No, the writer does not sound impersonal. They describe their workplace and job as a psychological counselor in a thoughtful and personal way, using vivid descriptions such as "large floor-to-ceiling windows allow sunlight to shine in" and "a place where people feel comfortable, a place where they can express their stress and mood, and a place where we can talk freely." Additionally, they discuss the qualities and skills necessary for being a successful psychological counselor and share their own aspirations to become one. Overall, the writer's tone is engaging and personal.

Insert Rephrase

evaluate whether the writer speaks from the 1st person?

HIDE ASSISTANT >>

84 Overall score >

Goals >

Generative AI

All suggestions

Plagiarism

B I 英 484 words



11:13 AM 1/5/2024

Fall 2023 in-class practice:

1. Learning about different reasoning styles

(Meta-cognitive skills)

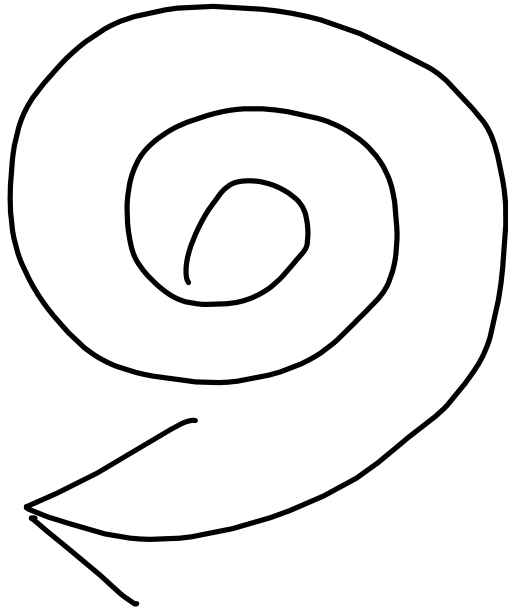
2. Give prompts at ChatGPT to improve the writing

..\112-1 Freshman English\2023 fall 加強班\Week 3 teacher version.pdf

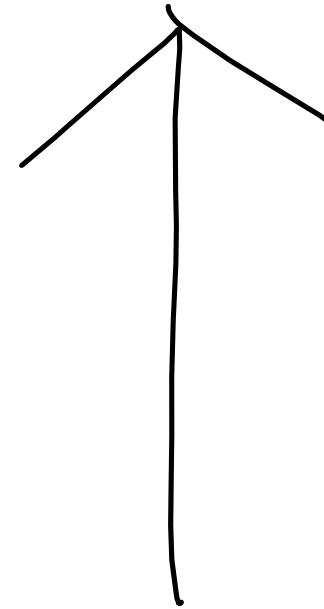
<https://forms.office.com/Pages/AnalysisPage.aspx?AnalyzerToken=ldbwe4ajF8ipFh24XKq3c8HLT88MSX5d&id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAFuIPrrsPFUNFFZQ0VSV0daQ08zTDFXTTRKUVRXWkdLNi4u>

Different reasoning styles

Circular reasoning in Mandarin Chinese



Linear reasoning in English



Assignment overview (spring 2024)

Assignment #1 instructions, grading rubrics

[..\112-2 Freshman English\2024 spring COIL Monday\2024 spring FE ChatGPT-enhanced written assignments prompts.pdf](#)

[..\112-2 Freshman English\2024 spring COIL Monday\2024 spring FE assignment 1 instructions, template.pdf](#)

[..\112-2 Freshman English\2024 spring COIL Monday\Thesis Statement Clarity and Focus Rubric \(assignment 1\).pdf](#)

Student sample 1

Student sample 李昱寬 (spring 2024 FE assignment .pdf)

Student sample 2

(nonsense critique)

2024 spring FE assignment 1 template(批改)_葉紘佑_.pdf

2024 spring FE (Monday) **survey** for assignment #1: thesis statement

<https://forms.office.com/Pages/DesignPageV2.aspx?origin=NeoPortalPage&subpage=design&iid=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAFuIPrrsPFUNVoxWjFFVzE5WDdUTjg5Ulg5QkwyVE9DWi4u&analysis=true>

Preliminary findings

1. Students know little about how to give effective prompts to achieve a desired outcome
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Pedagogical implications

1. ChatGPT is an instrument that helps **sharpen students' reasoning and argumentation skills** in meaningful contexts such as the SDGs
2. EFL learners need to adapt to the **paradigm shift** of prioritizing content (thesis statement & topic sentences) over form (grammar).
3. EFL learners need to learn how to navigate the interactive process with ChatGPT. (e.g. extent of revision)
4. **Whose reasoning and argumentation styles?** (* Native norms of speech or English as lingua franca?)