

ARTIFICIAL VERSUS HUMAN INTELLIGENCE IN ACADEMIC ESSAY WRITING: DO WE HAVE TO COMPETE WITH AI?

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Summary

The development of artificial intelligence opens up new opportunities for learning a second language and acquiring language skills. At the same time, when it comes to academic writing, AI's ability to generate unique narratives makes it a serious rival to those students who work independently. Obviously, it is no use trying to ban ChatGPT or other similar technologies. Therefore, if ESL teachers do not want their students to lose critical thinking faculties, it is time to review methods of teaching academic writing.

This study examines two groups of short essays on the same subject (analysis of a free verse poem), those written by senior ESL students and generated by artificial intelligence. Comparison between the groups is made in terms of linguistic characteristics of the essays (vocabulary, syntactic structures, figures of speech) and originality of the poem's interpretation. Typical weak and strong points of the human-authored and AI-generated essays are pointed out.

It is suggested that prior to setting an essay writing task, students can be engaged in choosing a topic that might interest them. They can start with writing a mock essay, ask ChatGPT to do the same, compare the two versions, and discuss the results in class. AI can help cope with linguistic problems; as to generating ideas, it is worth encouraging students to do it independently.

Key words: human/artificial intelligence, academic writing/essay, ChatGPT, human-authored essay, AI-generated essay.

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1. Introduction

The problem of coexisting with Generative AI in the academic environment is vast and deep (Oppenheimer, 2023; Hirsh-Pasek & Blinkoff, 2023). AI is recognized as a powerful instrument for language learning (Edmett, 2025: 33); it is claimed that artificial intelligence “actually help[s] prepare students for the real world, where they’ll need to apply concepts rather than simply recall facts”; the other side of the coin is that ChatGPT can “write verse in the style of Shakespeare [...], answer test questions and write essays” (Abramson, 2023: para. 2). In a rigorous study that focuses on linguistic characteristics of generated argumentative essays, Steffen Herbold et al. (2023: Introduction section) maintain that ChatGPT-4 “outperforms the quality of the human-written essays significantly”. So, there is a risk that AI-generated essays

can bring students unearned high points, and a frequent turn to AI can lead to deficiency in essay-writing competence, especially in ESL/EFL students.

We believe that at least three things are needed to prevent or mitigate such potential consequences: teachers' familiarity with ChatGPT's writing style; their readiness "to adapt strategies for teaching writing skills [and] to critically reflect with the students on when and how to use those tools" (*Herbold et al., 2023: Conclusion section*); systematic development of students' ability to think and to write independently.

Academic writing is a distinct type of discourse (*Bailey, 2006; Fang, 2024; Gillett et al., 2009; Thonney, 2011; University of York, 2025; Wilson, 2022; Yakhontova, 2003, 2024*). It deals with concepts, ideas, generalizations, and interpretations. It is considered to be objective as it relies on textual, historical, and citational evidence; though, humanities academic writing often adopts a subjective experience of an author.

Academic essays usually express authors' personal points of view, hence they are often subjective (*Yakhontova, 2003, 2024*). Authors are expected "to argue [their] position clearly and support it with evidence", to evaluate each argument and present a conclusion (which can be used as a premise in a further argument), to summarise the main points of an essay (*Gillett et al., 2009: 221–222*).

A basic requirement of academic writing is saying something new, either in the form of sharing new knowledge/experience or in the form of a novel interpretation of already known facts (*Wilson, 2022: 3*); in other words, a good piece of academic writing has to be creative. "In the scientific discourse, creativity is seen as using innovative ideas and technologies to create content that evokes an emotional response and engages the audience" (*Kyianytsia, 2025: 94*). When applied to academic writing, this definition points out both strengths and risks associated with the process of creation. An author can come up with an innovative idea; at the same time, there may be a serious temptation to use innovative technologies to generate some interesting ideas, as well as the final product (for example, an essay), especially when the deadline is imminent.

One of the ways to minimize negative effect of careless use of AI is to engage students in comparative analysis of texts produced by humans and artificial intelligence. This study highlights and compares some characteristic features of several short poetry analysis essays authored by humans and generated by ChatGPT. The framework of the analysis is Text World Theory (TWT), a cognitive model of discourse processing (*Werth, 1999; Gavins, 2007, 2020*). The aim of the study is to show how AI can be used to help students improve the quality of their own essays.

2. Designing an experiment

In this article, the acronym HAE are used for a human-authored essay; AIGE, for an AI-generated essay. The HAEs and AIGEs are regarded as two distinct groups of essays.

Seventeen first-year MA students of the English Philology Department of Vasyl Stefanyk Carpathian National University (formerly, Vasyl Stefanyk Precarpathian National University) were asked to write a short poetry analysis essay, about 200 words, discussing the role of function-advancing propositions and world-switches (elements in TWT) in interpreting the meaning of Michael Swan's poem *How Everything Is*:

Perhaps this is how everything is.
The scree steepens into a rockface;
you work your way up ten of twelve pitches,

each worse than the one before,
 the last a brutal overhang
 with few holds, and those not good;
 somehow, pushing your limits,
 you struggle through to the top
 with your arms on fire,
 to find a car park, toilets and a café.

(Swan, 2011: 2)

The principles of academic essay writing, requirements for poetry analysis essays, the basic concepts of TWT, including such elements as function-advancing propositions and world-switches, were discussed and practiced in class in the first semester of the 2024–2025 academic year. The essays were done as homework and submitted on December 19, 2024. Some of them had conspicuous features of AI-generated texts; others, in our opinion, were written independently. Our assumption on the students' independent writing was based on our familiarity with their style of spontaneous oral speech and the fact that there is almost no difference in the quality of their unprepared performance in class and the language of the essays in question. Three essays from among those that we believe to be written independently were chosen for the analysis, the choice criteria being better logical consistency and coherence, better substantiated interpretation of the poem compared to the other students' essays. By the permission of the authors, Sofiia Kovalchuk, Yaroslava Mankiv, and Vita Nespliak, one of the essays is reproduced in this section of the article and all the three essays are cited below.

We also received assistance and information from ChatGPT-4, AI language model, OpenAI platform. ChatGPT was asked to generate three essays on the same subject; dates of the interaction: March 22, 2025 (the first two essays) and April 29, 2025 (the third essay). The first AI-generated text is reproduced in full in this section of the article, all the three essays generated by ChatGPT are cited below.

HAE-1, HAE-2, HAE-3 stand for the three human-authored essays discussed; AIGE-1, AIGE-2, AIGE-3, for the AI-generated ones.

The title of all the essays is "The Role of Function-Advancing Propositions and World-Switches in Interpreting the Meaning of Michael Swan's Poem *How Everything Is*".

Human-authored essay (HAE-1):

In *How Everything Is*, the hard process of reaching an important goal ends in ironic disappointment. Michael Swan's use of function-advancing propositions and a world-switch helps better understand the meaning of the poem and shows how people tend to overcomplicate life.

Function-advancing propositions move the story forward. The enactor is climbing up a rockface ("you work your way up ten or twelve pitches, / each worse than the one before"). The struggle intensifies with each pitch until the climber reaches their physical and emotional limits ("somehow, pushing your limits, / you struggle through to the top"). These intention processes reveal a conscious choice to endure hardship to achieve a goal.

The world-switch – a change in spatial parameters of the text-world (from the dangerous rockface to the modern comforts at the top ("a car park, toilets and a café")) – sharpens the irony. The big effort leads to a reward that feels small and ordinary. This contrast shows how pointless some self-made challenges can be, especially when easier options, like driving up, are available.

Michael Swan metaphorically criticises humanity's inclination to complicate life. By combining function-advancing propositions with the world-switch, the author shows how effort

and reward do not always match, so readers should carefully consider their decisions to avoid unnecessary struggles or risks.

(An unpublished essay by S. Kovalchuk,
submitted on March 19, 2024)

AI-generated essay (AIGE-1):

In Michael Swan's poem *How Everything Is*, the poet uses an everyday experience – climbing a difficult rock face – to explore the deeper meaning of life and struggle. The use of function-advancing propositions and world-switches in the poem helps illuminate its meaning.

A function-advancing proposition is a statement that builds upon the previous one, progressing the narrative or understanding of a situation. In the poem, the climber begins by describing the steepening scree and the escalating difficulty of the climb. Each pitch becomes increasingly challenging, and this gradual progression mirrors life's struggles. The final function-advancing proposition – “you struggle through to the top” – suggests that despite the difficulty and suffering, there is a form of success or completion, albeit one that leads to a mundane, anticlimactic discovery: the car park, toilets, and café.

World-switches, on the other hand, involve a sudden shift in perspective or environment. The shift in the poem occurs when the climber reaches the summit, expecting perhaps some sublime reward, only to encounter a familiar, commercialized reality. This abrupt transition mirrors the disillusionment often found in life's pursuits, where struggles lead not to transcendence but to a return to the ordinary.

Through these techniques, Swan illustrates the futility and unexpected outcomes of human effort.

(ChatGPT, personal communication: March 22, 2025)

*

In what follows, we compare the essays from both groups in terms of vocabulary, syntactic structures, expressiveness, and originality of interpretation. Finally, we present some recommendations on how to encourage students to think for themselves, to develop their own writing skills, and “to use AI as a tool not as a substitute for learning” (Greene-Santos, 2024: para.4).

References for the examples in sections 3 and 4 of this article are as follows:

HAE-1 (an unpublished essay by S. Kovalchuk, submitted on March 19, 2024);

HAE-2 (an unpublished essay by Ya. Mankiv, submitted on March 19, 2024);

HAE-3 (an unpublished essay by V. Nespliak, submitted on March 19, 2024);

AIGE-1 and AIGE-2 (ChatGPT, personal communication: March 22, 2025);

AIGE-3 (ChatGPT, personal communication: April 29, 2025).

3. Linguistic characteristics of the essay texts

The study focuses on such linguistic characteristics of the essay texts as vocabulary, syntactic structures, and figures of speech.

The TWT terms “function-advancing proposition” and “world switch” are used in all the HAEs and AIGEs, while “enactor”, “change in spatial parameters of the text-world”, “change of objects”, “action process”, and “intention process” are used once each by human authors only.

Some other examples that give us idea of the students' linguistic competence or help recognize AI-generated texts are provided below.

Vocabulary

Human-authored essays:

n. – disappointment, limit, hardship option, inclination, reward (HAE-1); complexity, image (HAE-2); intentions, challenge, routine, scenery (HAE-3);
 ger. – combining (HAE-1); moving, going (HAE-3);
 adj. – conscious, spatial, pointless, self-made (HAE-1); required, spatial, mundane (HAE-2); crucial, bustling, mundane (HAE-3);
 v. – overcomplicate, endure, intensify (HAE-1); employ, reveal, consider, depict, challenge, indicate, facilitate, convey (HAE-2); imply, accomplish, convey (HAE-3);
 adv. – metaphorically (HAE-1, HAE-2); eventually (HAE-3).

AI-generated essays:

n. – narrative, progression, suffering, completion, discovery, perspective, environment, summit, reward, disillusionment, pursuit, transcendence (AIGE-1); exploration, existence, intricacy, perception, framework, engagement, dimension, device, perspective, transition, worldview, technique, confusion, unpredictability, meditation (AIGE-2); perception, concept, argument, progression, environment, acceptance, reflection, resilience, surface, undercurrent, intensity, scope, realism, technique, complexity, coexistence, hardship, strength (AIGE-3);
 ger. – tracing, accepting (AIGE-3);
 adj. – escalating, challenging, gradual, mundane, anticlimactic, sublime, familiar, commercialized (AIGE-1); layered, contradictory, transient, contingent (on) (AIGE-2); elusive, external, internal, philosophical (AIGE-3);
 v. – explore, illuminate, progress, mirror, involve, occur, encounter (AIGE-1); extend, provide, challenge, reconsider, force, experience, mirror (AIGE-2); explore, apply, advance, occur, engage, appreciate, reveal, require (AIGE-3);
 adv. – increasingly (AIGE-1); seemingly (AIGE-2); subtly, ultimately (AIGE-3);
 prep. – despite (AIGE-1);
 conj. – albeit (AIGE-1).

Word phrases

Human-authored essays: “ironic disappointment”, “overcomplicate life”, “physical and emotional limits”, “conscious choice”, “endure hardship”, “self-made challenges” (HAE-1); “metaphorically describe life and its complexity” (HAE-2); “eventually accomplish [one’s] goals”, “go to extremes”, “the scenery of nature”, “the material world” (HAE-3).

AI-generated essays: “escalating difficulty”, “gradual progression”, “mirror life’s struggles/disillusionment”, “a form of success/completion”, “sublime reward”, “commercialized reality”, “in life’s pursuits”, “transcendence” (AIGE-1); “complex exploration of existence”, “mirror the transient”, “shift nature of human experience itself”, “contingent on perspective and context”, “meditation” (AIGE-2); “explore the elusive nature of reality”, “subtly shift between”, “engage with the emotional/philosophical undercurrent” (AIGE-3).

The examples above clearly show that the students’ vocabulary is not as rich, and phrases are less sophisticated and elaborate than those used by ChatGPT; compare, for example, “metaphorically describe life and its complexity” (HAE-2) and “complex exploration of existence” (AIGE-2). On the other hand, the students use the key words (“function-advancing proposition”, world-switch”) and are keen to demonstrate their familiarity with other TWT concepts and principles (“enactor”, “change in spatial parameters of the text-world”, “action/intention process”); while ChatGPT concentrates on the key words only because it was not asked to show its general “knowledge” of TWT. Besides, ChatGPT’s interpretation of the notion of function-advancing

proposition does not quite match the meaning of this notion in terms of TWT. AIGE-1 says that “A function-advancing proposition is a statement that builds upon the previous one, progressing the narrative or understanding of a situation”; AIGE-3 states that “Function-advancing propositions are statements that push the argument or emotional progression of the poem forward”. Compare the above explanations with the one given by Joanna Gavins (2007: 56–57): “[...] some sort of material process, whether that process be an intentional action, a superventional action, or an event. In Text World Theory terms, all these processes are types of function-advancing propositions. [...] [F]unction-advancing propositions can be seen in many ways to be the items which propel a discourse forwards. Material processes almost always convey a change in state ...”.

In our subjective opinion, the students’ vocabulary/word phrases, though simpler in nature, describe the situation from the perspective of readers who place themselves in the position of the poem’s character (enactor); while ChatGPT’s vocabulary/word phrases, metaphorically speaking, are those of an efficient but cool and distant analyst.

Clauses and sentences

Complex and compound sentences are used in all the essays from both groups. Examples of other syntactic structures that catch the eye are given below.

Human-authored essays:

– gerund phrase, inversion: “By combining function-advancing propositions with the world-switch, the author shows how effort and reward do not always match [...]” (HAE-1); “[...] the character eventually accomplishes his goals by moving forward and even going to extremes” (HAE-3);

– participle clause: “[...] the author describes the pitches the character climbs, which may be “slight” spatial shifts indicating that each new stage of life is harder to get through” (HAE-2);

– parenthesis, detachment, explanatory phrase: “The world-switch – a change in spatial parameters of the text-world (from the dangerous rockface to the modern comforts at the top (‘a car park, toilets and a café’)) – sharpens the irony” (HAE-1); “‘The scree steepens into rock-face’ can mean the development of life, the way it becomes more complicated [...]” (HAE-2).

AI-generated essays:

– gerund phrase, inversion: “By tracing how function-advancing propositions build emotional intensity and how world-switches broaden the scope of perception, readers can better appreciate Swan’s delicate balance between realism and hopefulness” (AIGE-3);

– participle clause, infinitive clause: “The shift in the poem occurs when the climber reaches the summit, expecting perhaps some sublime reward, only to encounter a familiar, commercialized reality” (AIGE-1);

– detachment: “World-switches, another key device in the poem, help to create a sense of movement between different states of existence, perspective, or understanding” (AIGE-2).

On the whole, we can state that in terms of clause/sentence structure, the students’ essays are no less diverse than the AI-generated texts.

Figures of speech

Epithets, metaphors, and antithesis are found in both groups of texts. Some examples are given below.

Human-authored essays:

- epithets: “ironic disappointment”, “pointless self-made challenges”, “unnecessary struggles or risks” (HAE-1); “desired thing”, “mundane things/routine” (HAE-2, HAE-3); “bustling city life” (HAE-3);

- metaphor: “sharpen the irony” (HAE-1);

- antithesis: “The big effort leads to a reward that feels small and ordinary” (HAE-1).

AI-generated essays:

- epithets: “increasingly challenging pitch”, “gradual progression”, “mundane, anticlimactic discovery”, “sublime reward”, “familiar, commercialized reality”, “unexpected outcomes” (AIGE-1); “layered meaning”, “seemingly contradictory ideas” (AIGE-2); “elusive nature of reality” (AIGE-3);

- metaphors: “progression mirrors life’s struggles”, “abrupt transition mirrors the disillusionment often found in life’s pursuits”, “struggles lead not to transcendence but to a return to the ordinary” (AIGE-1); “mirror the transient and shifting nature of human experience” (AIGE-2); “the poem subtly shifts between different realities”, “allow readers to see beyond the surface”, “emotional and philosophical undercurrents of the poem” (AIGE-3);

- antithesis: “expecting perhaps some sublime reward, only to encounter a familiar, commercialized reality”, “lead not to transcendence but to a return to the ordinary” (AIGE-1); “the speaker moves from external descriptions of the physical world to internal reflections on human resilience and hope”, “the coexistence of external hardship with internal strength” (AIGE-3).

In both the HAEs and the AIGEs, the dominant figure of speech is epithet. AI uses metaphors much more liberally than the human authors. There are two cases of antithesis in the AI-generated texts. Metaphors and antithesis are definitely underestimated by the human authors; in their essays are used only once each.

It may seem that extensive use of metaphors “strengthen[s] the figurative attractiveness” (*Marchuk, Mintsys, 2023: 111*) of a text. Yet, from our perspective, abundance of metaphors in the AI-generated essays results in some unnaturalness of their discourse.

4. Interpretations of the poem

Citations below represent interpretations of the poem explicated/implicated in both groups of essays:

- the poem is about “conscious choice to endure hardship to achieve a goal” (HAE-1); the poem “mirrors life’s struggles” (AIGE-1);

- “effort and reward do not always match” (HAE-1); “the result is not worth the struggle” (HAE-2); “the disillusionment often found in life’s pursuits, where struggles lead not to transcendence but to a return to the ordinary” (AIGE-1);

- “Michael Swan metaphorically describes life and its complexity” (HAE-2); “[U]nderstanding “how everything is” requires accepting complexity, nuance, and the coexistence of external hardship with internal strength” (AIGE-3);

- one “needs to challenge themselves and make an effort to reach the top, i.e., the desired thing” (HAE-2);

- it is an attempt “to escape [one’s] mundane life and enjoy nature” (HAE-3).

Thus, the essays present three basic ideas: (i) life as struggle; the need to challenge oneself; external hardship vs. internal strength (HAE-1, HAE-2, AIGE-3); (ii) complexity of life; effort does not always ensure desired result (HAE-1, HAE-2, AIGE-1); (iii) mundane life vs. enjoying nature (HAE-3). On balance, the responses of the human authors are no less (sometimes even a bit more) creative than those of AI.

5. Conclusions

This article is addressed not only to educators, but also to ESL/EFL learners since, in our experience, some students genuinely believe that ChatGPT (or a similar tool) can produce a better piece of writing than any text written by themselves. This assumption means that ultimately, they will have to admit superiority of artificial intelligence over the human mind, which is not a very cheerful conclusion. Undoubtedly, it all depends on students' knowledge/skills/motivation, and on the capabilities of the ChatGPT model; but we are convinced that students have to develop their critical thinking potential.

The comparative analysis of the human-authored and AI-generated texts above allows us to state that, for all their weak points, the independently-written students' essays are more human-centered and by no means less creative than those produced by artificial intelligence.

At this stage of our research, we can suggest the following recommendations for developing students' ability for independent thinking and essay-writing skills:

Classroom procedure:

- choosing a relevant/challenging/interesting topic for analysis, discussing it in class, receiving students' feedback;
- examining theoretical framework of analysis;
- choosing material for analysis, taking into account students' suggestions;
- together with the students, compiling a list of issues which can be highlighted in an essay; discussing students' preferences;
- introducing/revising requirements for academic essay writing.

Homework:

- writing one's own mock essay;
- asking ChatGPT to write a mock essay;
- comparing the two versions in terms of their linguistic characteristics and originality of interpretation;
- asking ChatGPT for help with tricky linguistic issues;
- writing one's own essay.

Back in the classroom:

- sharing one's essay with the class;
- discussing how students used ChatGPT in writing their essays: questions asked, answers received, how communication with ChatGPT improves their knowledge of English in general and writing skills in particular;
- comparing and discussing different perspectives on the problem analyzed.

In this study, we have not considered such discourse properties as cohesion and coherence, hence we have not compared human-authored and AI-generated texts from this perspective. This aspect of analysis can be a potential avenue for further investigations. Besides, our study is based on rather limited data material. In future, we plan to involve 2nd–4th year BA students, as well as MA students in an experiment to test the effectiveness of the strategies suggested.

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