

Perceptions and Attitudes of Vocational Students in Using Google Gemini as a Writing Tool

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Abstrak

Penelitian ini bertujuan untuk mengkaji persepsi dan sikap siswa Sekolah Menengah Kejuruan (SMK) jurusan kuliner terhadap penggunaan Google Gemini sebagai alat bantu berbasis kecerdasan buatan (AI) dalam menulis teks analytical exposition. Latar belakang penelitian ini berasal dari berbagai tantangan pembelajaran menulis di SMK, seperti keterbatasan waktu, rendahnya motivasi, dan kemampuan bahasa Inggris yang bervariasi. Metode yang digunakan adalah deskriptif kualitatif dengan pengumpulan data melalui wawancara semi-terstruktur terhadap tujuh siswa kelas XI yang dipilih secara purposive. Hasil penelitian menunjukkan bahwa siswa umumnya memandang Google Gemini sebagai alat yang membantu dan mudah digunakan, khususnya pada tahap perencanaan dan penyusunan awal tulisan. Fitur-fitur seperti pembangkitan ide, bantuan tata bahasa, dan struktur paragraf sangat diapresiasi. Sikap siswa mencerminkan tiga komponen sikap: kognitif, afektif, dan perilaku. Meskipun banyak siswa menunjukkan emosi positif seperti puas dan percaya diri, beberapa juga mengungkapkan kekhawatiran akan ketergantungan dan menurunnya kemampuan berpikir kritis. Temuan ini menunjukkan pentingnya strategi pembelajaran yang menanamkan literasi digital serta penggunaan AI secara kritis dan etis.

Kata Kunci: persepsi, sikap, Google Gemini

Abstract

This study aims to examine the perceptions and attitudes of vocational high school students majoring in culinary arts toward the use of Google Gemini as an AI-powered tool in writing analytical exposition texts. The research background arises from challenges in writing instruction, including limited time, low motivation, and varied English proficiency. A qualitative descriptive method was used, with data collected through semi-structured interviews involving seven 11th-grade students selected via purposive sampling. The findings revealed that students generally viewed Google Gemini as a helpful and user-friendly tool, especially during the planning and drafting stages. Features such as idea generation, grammar assistance, and paragraph structuring were particularly appreciated. Students' attitudes reflected the cognitive, affective, and behavioral components. While most students expressed positive feelings like satisfaction and confidence, some raised concerns about overreliance and diminished critical thinking. These findings highlight the need for pedagogical strategies that promote digital literacy and the responsible, ethical use of AI in education.

Keywords: perception, attitude, Google Gemini

INTRODUCTION

Writing skills are essential in vocational education as they support both academic success and workplace readiness (Siregar et al., 2022). In vocational high schools, especially in programs like culinary arts, writing is often used for documenting procedures, reporting, and professional communication (Herawati, 2024). However, many students face challenges in mastering writing, including limited English proficiency, reduced instructional time, and low motivation (Adam et al., 2021). These issues are especially evident when composing analytical exposition texts, which require logical structure, argumentation, and critical thinking (Hasibuan et al., 2020; Sartika et al., 2023; Yulianti, 2023).

The Indonesian curriculum based on Permendikbud No. 70 mandates the teaching of analytical exposition texts in the second year of vocational high school. These texts promote higher-order thinking and academic literacy (Derewianka & Jones, 2022), and yet vocational students often perceive them as unrelated to their practical field, leading to weak engagement. As such, artificial intelligence tools such as Google Gemini offer potential solutions. As an advanced generative AI, Gemini provides real-time feedback, idea generation, and language support, making it a promising aid for writing instruction (Rizky Ananda & Salmiah, 2024; Zhong et al., 2024). Moreover, several studies suggest it can improve writing fluency and student confidence (Baskara, 2025; Kartika S, 2024), but most research has focused on academic settings,

overlooking the unique needs of vocational learners (Khairunas et al., 2021; Suparyati et al., 2023).

Furthermore, existing studies often neglect students' subjective experiences, such as ease of use, trust in AI, and its impact on creativity (Yasinta et al., 2025). Ethical concerns like overreliance, misinformation, and plagiarism have also been raised (Kasneci et al., 2023; Zhai et al., 2024). Yet, it remains underexplored in vocational contexts.

Therefore, this study aims to explore the perceptions and attitudes of vocational high school students toward using Google Gemini as an AI-powered tool for writing analytical exposition texts. Specifically, it addresses the following research questions: (1) How do second-year culinary vocational high school students perceive Google Gemini as an analytical exposition text writing aid? and (2) What are the vocational high school students' attitudes toward using Google Gemini as an analytical exposition text writing aid?

METHODS

This research employed a qualitative descriptive design to investigate the perceptions and attitudes of vocational high school students toward the use of Google Gemini as a writing tool for analytical exposition texts. This approach was chosen for its methodological flexibility and capacity to stay close to participants' words and experiences. As described by Villamin et al. (2024), qualitative description is particularly suitable for research that seeks to provide a detailed and low-inference account of real-life phenomena—making it appropriate for studies involving students' interactions with educational technologies.

The study was conducted at a public vocational high school in Mojokerto Regency, where culinary program students were observed by the teacher using Google Gemini during classroom writing activities. The research was carried out during the second semester of the academic year and took place over a two-week period, which coincided with the school's limited instructional time due to examination preparations.

The subjects consisted of approximately 25 second-year culinary students. A purposive sampling strategy was employed to select seven students who had used Google Gemini in their writing tasks and were available during the research period. These participants were deliberately categorized based on their writing interest and engagement with Google Gemini—three students with low writing interest and four with high interest—based on teacher observation and recommendation, particularly focusing on their enthusiasm, initiative, and consistency in writing activities. Further variation was considered in terms of frequency of tool use and writing proficiency, allowing the inclusion of a spectrum of learner experiences.

In addition to writing interest, the participants were categorized based on two further criteria: frequency of using Google Gemini (high, moderate, or low) and their writing abilities (strong, good, sufficient, or underdeveloped), as assessed through teacher feedback and classroom writing performance. Two participants (P2 and P3) demonstrated a high frequency of tool use and strong to good writing ability, frequently relying on Gemini for editing and refinement. P6 also exhibited a high frequency of use, with sufficient writing ability, utilizing the tool across all stages of writing. P4 used Gemini frequently, though his writing ability was categorized as sufficient. Meanwhile, P1 showed moderate use of Gemini and moderate writing ability, typically using it for translation. Two participants' (P5 and P7) were classified as low-frequency users. P5 had sufficient writing ability and used Gemini mainly for idea generation, whereas P7 demonstrated underdeveloped writing skills and admitted to copying content from the tool with minimal adaptation. This categorization, based on usage frequency and writing proficiency, provided a clearer understanding of how students with different literacy levels interacted with AI tools during the writing process.

Purposive sampling was chosen because it enables the intentional selection of individuals who possess characteristics directly relevant to the phenomenon under investigation (Hossan et al., 2023), thereby facilitating the discovery of rich, context-specific insights. As such, this approach allows researchers to adapt selection criteria as new themes emerge and to focus efforts on participants most likely to provide meaningful data, although the non-random nature of the sample limits generalizability to the broader population.

The primary data source was semi-structured interviews designed to capture participants' perceptions and attitudes. The interview instrument was developed based on relevant literature and theoretical models, including the Technology Acceptance Model (Davis & Granić, 2024), the triadic model of attitude (Maio et al., 2018), and Vygotsky's sociocultural learning theory. Questions explored perceived usefulness, ease of use, emotional responses, and behavioral tendencies related to Google Gemini. Interviews were conducted individually in the classroom, lasted approximately ten minutes each, and followed an open-ended format to encourage authentic expression. Ethical standards were upheld throughout, with an emphasis on informed consent and participants' comfort.

In addition to interviews, documentation was collected to supplement the data. Screenshots of students' interactions with Google Gemini during writing activities, such as using grammar correction or translation features,

were gathered. Samples of students' written texts were also collected, although they were not the primary focus due to challenges in isolating AI-generated content. These documents served as visual evidence of student engagement and were used to triangulate interview findings.

The researcher maintained direct involvement throughout the research process, acting as the primary instrument in conducting interviews and collecting documentation. Data analysis followed the Miles and Huberman model, consisting of three stages: data reduction, data presentation, and conclusion drawing. During data reduction, transcribed interviews were reviewed, and irrelevant content was excluded. In the presentation stage, themes such as perceived effectiveness, emotional comfort, and ethical concerns were organized descriptively, supported by participant quotations. Finally, conclusions were drawn to answer the research questions and to reflect the authentic voices of the participants. To ensure the validity and trustworthiness of findings, triangulation through interviews and documentation was implemented, and the anonymity of participants was preserved by coding them (e.g., P1, P2).

This methodological framework was selected to provide a practical, student-centered lens on AI adoption in the vocational classroom while ensuring rigor through systematic sampling, data triangulation, and conceptually grounded instrument development.

RESULTS AND DISCUSSION

This study explored how vocational high school culinary students perceive and respond to using Google Gemini, an AI-powered tool, to assist in writing analytical exposition texts—tasks that demand logical structure and coherence. The integration of Gemini served as a pedagogical aid within their English curriculum.

The findings and discussion are framed through the Writing Process Model (Hyland, 2022), the Technology Acceptance Model (TAM) (Davis & Granić, 2024), and the Triadic Model of Attitude (Maio et al., 2018). The Writing Process Model highlights the cognitive and recursive nature of students' writing behaviors. TAM explains technology adoption through perceived usefulness (how Gemini improves writing performance) and perceived ease of use (how effortlessly it can be used). The Triadic Model of Attitude further deepens the analysis by examining students' responses across cognitive (beliefs), affective (emotions), and behavioral (actions) dimensions.

Students' Perception of Google Gemini as a Writing Tool

The participant reported that they employed Google Gemini across various stages of the writing process, primarily during the planning, drafting, and editing phases. In the planning stage, Gemini served as a brainstorming aid. Students used it to explore themes, structure outlines, and formulate thesis statements. One student noted, *"I use Gemini in finding initial ideas or concepts of the text. In addition, I also use Google to help in translating texts and ideas from Indonesian to English (P1)."* The student's response highlights P1's use of Gemini as a cognitive support tool during the early stages of writing. The student not only relies on Gemini to generate initial ideas but also uses it to overcome linguistic barriers, which is particularly important in EFL contexts. It shows that students view the tool as both a brainstorming partner and a language bridge, facilitating the articulation of ideas in English, and illustrating a personalized engagement where the AI tool complements the learner's cognitive process.

In the drafting phase, students leveraged Gemini to develop coherent arguments and complete paragraphs. This interaction supports the view that writing is not a linear but a recursive process. Several students iteratively revised AI-generated texts, integrating their thoughts and evaluating the coherence of the arguments presented. One of them noted, *"Moreover, I use Google Gemini to help me create a draft of, like, text argument that I can explain alone or with Gemini's help again. Like, I ask Google Gemini to expand the argument that I create (P4)."* The student's comment reveals an interactive drafting process where the student initiates an argument and then collaborates with Gemini to develop it further. This behavior reflects a strategic use of AI as a writing partner, supporting logical reasoning and content development. The iterative dialogue between human and AI suggests metacognitive engagement and a willingness to refine their ideas through feedback. This form of engagement not only confirms the practicality of AI in supporting content development but also suggests a shift in writing pedagogy toward more technologically mediated practices.

In the editing stage, students used Gemini for language checking, coherence verification, and clarity improvement. As one student explained, *"I put my text to Google Gemini and use Gemini to check it again to see if they are correct or not (P2)."* This indicates that Gemini functions as a revision assistant. The student demonstrates awareness of the importance of accuracy and clarity in writing and relies on the AI to review and polish the final output. Such use promotes self-regulated learning, where students actively revise and enhance their work using feedback tools. Such statements highlight the tool's

supportive role in reducing anxiety and enhancing writing confidence, particularly among second-language learners.

The interview reveal that students did not use Google Gemini passively but actively engaged with it throughout the writing process. In the planning stage, students used Gemini to brainstorm and translate ideas, indicating that the tool functioned as both a cognitive and linguistic support. This supports the idea that AI tools can act as scaffolds for learners, especially in EFL contexts where language barriers are present. During the drafting phase, students collaborated with Gemini to expand and refine their arguments. Their interaction with the tool shows a recursive writing process, consistent with Hyland, (2022) writing model, where planning, drafting, and revising occur repeatedly rather than linearly. In the editing stage, students used Gemini to review grammar, coherence, and clarity. This aligns with the Technology Acceptance Model (Davis & Granić, 2024), which posits that perceived usefulness and ease of use influence technology adoption. Students' confidence in using Gemini for revision also points to increased self-regulation and writing independence. Overall, the integration of Gemini supported idea generation, content development, and revision—highlighting its role as a flexible, interactive aid throughout the writing process.

Meanwhile, as for why the students chose Google Gemini, the responses were varied. Some of the students cited usability, speed, and efficiency as the primary reasons for choosing Google Gemini as a writing tool. These preferences were grounded in both functional needs and social influences, reflecting a combination of cognitive, technological, and environmental factors. The tool's interface was perceived as less intimidating than other AI platforms, and students appreciated its quick turnaround time in generating content. These findings align with the core propositions of the Technology Acceptance Model (TAM), which posits that perceived ease of use and usefulness directly influence user behavior and technology adoption (Yang & Wang, 2019).

A recurring theme among participants was the ease of use associated with Google Gemini. Four students emphasized that the platform's straightforward design contributed significantly to their decision to use it. P2 noted, *"I choose Gemini because it is simpler than ChatGPT since the interface is easier to understand and not much looking for."* Similarly, P3 shared, *"It is fast and easier to use since you just need to input what you want to look for."* P4 added, *"Gemini is faster and easier to operate since you just need to put your initial thought in it,"* while P6 stated, *"The appearance of Google Gemini is simpler and easier to understand than others like ChatGPT."* The students' responses reflect the importance of interface clarity and cognitive simplicity, especially in

an educational context where learners are juggling content mastery with linguistic and technological challenges. Students gravitated toward platforms that minimized unnecessary complexity. This supports the Technology Acceptance Model (TAM) assertion that perceived ease of use enhances user acceptance and engagement (Davis & Granić, 2024). For second-language learners in vocational schools, Gemini's accessible interface reduced the mental load, allowing them to focus more on generating and organizing ideas.

Another significant reason for choosing Gemini was its speed and specificity in providing useful content. Compared to both traditional search engines and other AI tools, Gemini was praised for delivering concise, relevant responses quickly. P3 explained, *"Google Gemini is more accurate, more complete than ChatGPT... the results can be more specific."* P5 remarked, *"Gemini is faster than the others, like ChatGPT. And also, if you use traditional tools like Google, there are too many results."* P6 added, *"Gemini can be used without logging in first since you can directly enter what you want to search for."* These comments highlight how Gemini's functionality addressed two core student concerns: time management and information overload. Unlike conventional search engines that often produce overwhelming amounts of data requiring user filtering, Gemini simplified the research and content-generation process. This reinforces Technology Acceptance Model (TAM) second core variable—perceived usefulness—as students recognized the tool's ability to enhance task performance efficiently.

Interestingly, social factors also emerged as influential in students' decisions to adopt Google Gemini. While much emphasis was placed on individual experiences of ease and speed, some students noted that their choice was shaped by what their peers were using. P1 simply stated, *"My friend uses it,"* while P7 commented, *"I just want to use it or try it since others are also using it. Also, I just want to make it easier to do assignments."* These responses point to the role of subjective norms, an extension of the original Technology Acceptance Model (TAM) model proposed by Davis et al. (2024), which emphasizes the influence of social pressure on behavioral intention. Within the classroom context, technology adoption appeared to be socially constructed: students were more likely to try a new tool if they saw it successfully used by their peers. This peer-to-peer influence mirrors classroom dynamics where digital literacy is not only acquired through instruction but also through informal social learning. When a tool like Google Gemini becomes part of peer discussions or shared strategies, it gains legitimacy and encourages further use.

Overall, students' use of Google Gemini was driven by a mix of practical needs, ease of use, and social influence.

Its user-friendly design, speed, and relevant content supported the demands of writing analytical exposition texts, especially for ESL vocational students. Beyond technical advantages, peer influence and curiosity also shaped adoption, highlighting how educational technology use is both individually motivated and socially influenced.

Moreover, the multifaceted utility of Google Gemini became evident through student response. The tool was instrumental in helping students generate, organize, and express ideas. For second-language learners, its built-in translation features proved to be particularly helpful. Students reported that Gemini reduced their dependence on dictionaries or multiple platforms by consolidating functionality in one interface.

The integration of AI into the writing process also contributed to cognitive development. According to Masyithoh (2021), writing strategy is crucial for success in EFL settings. Gemini functioned as both a writing strategy enabler and a language scaffold. Students not only generated more specific and well-developed paragraphs but also reflected critically on the content provided by the AI, thereby enhancing their digital and linguistic literacy. However, despite the many reported advantages, the students also report several challenges. One participant admitted to copying AI-generated content directly, bypassing essential stages of planning and revision. This kind of passive use raises concerns about academic integrity and the development of critical thinking. As Kotmungkun et al., (2024) caution that without clear instructional guidelines, AI tools may encourage surface-level learning and dependency rather than deeper cognitive engagement.

Technical limitations also emerged, with several students experiencing lag, freezing, or device incompatibility. Students often found that their mobile phones were not powerful enough to run Google Gemini efficiently: *"My phones are sometimes not strong enough to load Google Gemini (P3)."* These infrastructural barriers significantly limit equitable access to technology, particularly in under-resourced educational contexts.

Additionally, poor internet connectivity was a recurring concern. Gemini's requirement for a stable connection often led to delays or disengagement. As P7 noted: *"It's hard to get a signal, which makes me lazy. I have to wait for the signal to get better."* These findings suggest that successful integration of AI writing tools relies not only on the availability of the software but also on stable infrastructure and equitable digital access.

Concerns about content accuracy and relevance were also frequently expressed. Students highlighted the need to verify and revise Gemini's outputs due to inconsistencies or irrelevant suggestions: *"Sometimes the results from Gemini are less relevant to the keywords, so they need to*

be checked again (P6)." This aligns with Eysenck & Keane (2020) theory of active perception, which emphasizes that users must filter, evaluate, and adjust external information to meet their cognitive and contextual goals. In this case, students needed to engage critically with AI-generated text, not merely consume it.

Furthermore, some internal frustrations arose from how the tool operated. Freezing, slow responses, and lagging affected not only productivity but also motivation: *"Google Gemini often freezes when loading the results (P2)."*, and *"Both my phone and the Gemini may sometimes lag (P3)."* While these issues partly reflect hardware limitations, they also point to user experience challenges that impact the educational effectiveness of AI tools.

As such, students' difficulties with Google Gemini involved both external barriers—such as device limitations and internet access—and internal ones, including slow responsiveness, irrelevant content, and overreliance. However, many students still demonstrated a reflective approach, cross-checking and editing AI output. These findings suggest that for AI tools to be truly beneficial in education, they must be supported by adequate infrastructure, clear pedagogical guidance, and the development of students' critical digital literacy.

The findings from the interview revealed that students actively engaged with the tool throughout the writing process—from idea generation to revision—highlighting their view of Gemini as a cognitive and linguistic support rather than a mere automation tool. These insights were drawn from students' reflective responses during interviews, in which they described using Gemini to brainstorm ideas, expand arguments, and correct grammar and coherence in their texts.

The students' interaction with the tool showed a recursive, non-linear approach to writing, aligning with Hyland's (2022) writing process model. Rather than progressing through planning, drafting, and revising in a fixed sequence, students often returned to earlier stages, using AI-generated suggestions to improve clarity and structure. This supports the interpretation that Gemini facilitated a flexible and personalized writing process.

Moreover, students' favorable perception of Gemini's usefulness and ease of use reflects core principles of the Technology Acceptance Model (Davis & Granić, 2024), which posits that user behavior is influenced by both functional value and perceived effort. Students not only benefited from Gemini's features—such as translation, vocabulary suggestions, and fast content generation—but also developed critical digital literacy by evaluating and editing the AI's output. These behaviors demonstrate a shift from tool reliance to tool negotiation, indicating greater autonomy and reflective engagement.

While technical and content-based limitations were noted, students remained motivated to use the tool, often encouraged by peers or driven by academic demands. This suggests that technology adoption in educational contexts is shaped by both individual experiences and social dynamics, supporting a more situated view of AI integration in EFL writing.

Students' Attitudes Towards Google Gemini

Most participants described feelings of satisfaction, relief, and increased confidence when using Google Gemini. One student remarked, *"I feel satisfied and happy to use Google Gemini because the results of the search for the searched idea can be comprehensive (P3)."* The student's reflection underscores the emotional impact of AI use. The satisfaction and happiness conveyed suggest that Gemini not only addresses functional needs but also contributes to a positive emotional writing experience. This feeling of completeness and support reduces writing anxiety and reinforces student confidence. These positive emotions were attributed to the tool's ability to simplify the writing process, especially during the idea generation and drafting stages.

However, ambivalence also surfaced. Some students expressed anxiety about relying too heavily on AI tools, fearing that it might diminish their capacity to think independently. For example, *"I am happy that there's text right away, but I am also worried because I don't trust the results from AI like Gemini (P5)."* This illustrates student ambivalence. While the students value the immediacy of AI-generated text, there is also distrust and concern about the reliability of the content. This points to the necessity for explicit instruction in critical thinking and digital literacy, equipping students to question and verify AI output rather than depend on it blindly.

Students' affective responses demonstrate that AI tools like Google Gemini contribute meaningfully to their emotional experience during writing. Many participants reported feelings of satisfaction, relief, and confidence—emotions that align with the affective component of the Triadic Model of Attitude (Maio et al., 2018). These positive reactions suggest that the tool not only simplifies the writing process but also enhances students' emotional engagement, particularly in tasks that often induce anxiety, such as writing in a second language. At the cognitive level, students expressed mixed beliefs about AI-generated content, with some voicing concerns over trustworthiness and the potential risk of becoming overly reliant on such tools. This ambivalence indicates a level of critical thinking and evaluation, which aligns with the Technology Acceptance Model (Davis & Granić, 2024).

Finally, the behavioral component was evident in how students used Gemini to assist in idea generation and

drafting, while still exercising caution by verifying or modifying its output. These findings suggest that students' attitudes toward AI are not passive but nuanced, involving emotional, rational, and action-based engagement. For classroom application, this highlights the need for pedagogical strategies that support critical digital literacy—ensuring that students learn to use AI responsibly, reflectively, and in ways that complement their thinking.

Additionally, the integration of Google Gemini into students' writing processes revealed diverse perceptions regarding how closely the AI-generated outputs aligned with their original ideas. This aspect became particularly significant in shaping students' sense of authorship and writing confidence, especially in the context of composing analytical exposition texts.

Some students perceived a strong congruence between their initial ideas and the content produced by Gemini. For instance, one participant expressed that Gemini's results *"still reflect the initial idea,"* which in turn made them feel *"confident in [their] abilities because Gemini's results are relevant (P3)."* Another student shared a similar sentiment, acknowledging that the output *"still connected with the initial thought (P4),"* which contributed to a moderate sense of confidence, as they saw their ideas successfully represented through the AI tool. These accounts suggest that when Gemini's content resonates with students' conceptual intentions, it serves not only as a language assistant but also as a form of validation. It reassures students that their thoughts are coherent and meaningful, thus encouraging them to take greater ownership of the writing process.

This sense of alignment appears to support a collaborative dynamic, where the tool reinforces and expands upon students' original input without diminishing their agency. Rather than substituting the students' creativity, Gemini amplifies it, providing structure and language support that complements their intentions. As a result, students reported feeling more confident and motivated to develop their ideas further, viewing the tool as an extension of their thinking rather than a replacement.

However, not all students experienced this alignment in the same way. Several participants acknowledged a degree of discrepancy between their thoughts and the content generated by Gemini. One student (P2) remarked that the AI's response was *"almost the same because Google Gemini is longer,"* and this difference was not discouraging but rather challenging, inspiring the student to try and be more than Google Gemini. Another participant noted that although the output was not the same and even considered better than their original idea, they still felt confident because the foundational idea came from them (P1). In such cases, the divergence between AI-

generated content and student intention did not undermine their self-assurance. Instead, it spurred a sense of competition or aspiration, where the AI's capabilities set a higher benchmark that encouraged students to enhance their writing.

Other students acknowledged slight differences between Gemini's output and their original thoughts but remained positively inclined. One participant stated there was *"a slight difference or almost different from the initial idea,"* yet still felt *"more confident because [they were] assisted by Google Gemini"* (P6). These reflections point to an active engagement with the AI tool—where students remain aware of the distinctions while still finding value in its support. For these learners, the AI serves as a supplementary writing aid that helps articulate thoughts more effectively without overshadowing their conceptual input.

In contrast, a few students conveyed a neutral or indifferent stance. Two participants commented that Gemini's results were *"sometimes relevant, but sometimes not,"* leading them to feel normal or indifferent when using the tool (P7). This response suggests a more transactional or utilitarian use of Gemini, where the students' engagement with the writing process may focus more on fulfilling a task rather than expressing personal ideas. The lack of emotional or intellectual investment in how closely the AI reflected their ideas might point to a reduced sense of authorship or a tendency to rely on the tool for convenience rather than creative collaboration.

These responses reveal a nuanced relationship between students and AI writing tools. Some see Gemini as a supportive partner that boosts confidence and creativity, while others treat it as a neutral aid, indifferent to idea alignment. Many fall in between, using the tool to reflect, improve, and grow. These diverse perspectives highlight how students' responses to AI outputs—whether affirming, challenging, or passive—shape their writing experience, balancing between support, self-expression, and technological influence.

Nevertheless, a majority of the students expressed a positive or neutral attitude toward the ongoing use of Google Gemini. These participants highlighted the tool's practicality in generating ideas, organizing content, and assisting with English-language expression. For instance, P3 stated, *"Don't worry too much if Gemini can make you lazy to think because you have to think about what you are looking for first."* Similarly, P4 remarked, *"Well, it's easy to use, the results instantly appear, and it can help me. So I would use it in the future since I have no worries because it is sophisticated."* These statements reflect both perceived ease of use and perceived usefulness, the core components of the Technology Acceptance Model (TAM) (Davis & Granić, 2024).

Moreover, the students acknowledged that while Gemini simplifies the writing process, it does not eliminate the need for active cognitive engagement. P5 added, *"Don't worry too much, because Gemini makes it easy because ideas come out to write and make the task easier. I think I will keep using it."* Meanwhile, P7 emphasized user responsibility: *"I am not too worried, because I'm sure the machine is never wrong. The one who's wrong is the one who uses it. Of course, I'll keep using it since it helps me."* These responses illustrate that the tool is not perceived as a threat to learning but as a support mechanism. The students' readiness to continue using Gemini aligns with the Technology Acceptance Model (TAM) prediction that high perceived usefulness and perceived ease of use foster greater acceptance and sustained use.

On the other hand, a few students expressed concerns about potential cognitive drawbacks of long-term use. P1 remarked, *"I am worried because Gemini can make you lazy to think of your ideas. Still, I might use Google Gemini in the future. It depends if there are other alternatives."* This response indicates a degree of ambivalence. Although the student acknowledges the tool's utility, they remain concerned that its convenience could inhibit critical thinking. From a Technology Acceptance Model (TAM) perspective, this reveals a diminished perception of usefulness when long-term cognitive development is considered. Thus, even when ease of use is high, concerns about intellectual passivity can lower behavioral intention to use the technology.

In addition, some students articulated a balanced and thoughtful position that recognized both the strengths and limitations of Google Gemini. P2 stated, *"Gemini is good because it can help with assignments and make things easier, especially when looking for initial ideas or when you want to make a framework for a text. But I am also anxious that Gemini can make you lazy to think about your ideas."* Similarly, P6 reflected, *"Good and bad, because it shows that technology is getting more advanced and can help create ideas and expand or develop ideas, but also worried that Gemini can make you lazy to think."* These students demonstrated a more self-regulated and critical approach to technology use, which complements the Technology Acceptance Model (TAM) by showing how contextual concerns and value-based judgments influence acceptance.

When asked about their future intentions, most students indicated that they would likely continue using Google Gemini, particularly when facing difficulties expressing complex ideas in English. However, their reflections also showed signs of emerging digital maturity—an awareness of the tool's dual potential to support or hinder learning, depending on how it is used.

This digital maturity represents a foundational 21st-century skill: the ability to use technology critically, ethically, and strategically. As students begin to evaluate AI tools not just for convenience but also for their implications on learning autonomy, they cultivate higher-order thinking skills such as self-regulation, critical evaluation, and responsible technology integration.

Viewed through the Technology Acceptance Model (TAM) framework, this suggests that students' perceived usefulness is shaped not only by efficiency and convenience, but also by how well the tool aligns with long-term educational values, such as critical thinking and independence. While most students reported positive experiences and a willingness to continue using the tool, their openness was accompanied by a desire for intentional and thoughtful use.

The findings above addressing the second research question reveal that students' attitudes toward Google Gemini were shaped by a combination of emotional, cognitive, and behavioral factors. Affective responses such as satisfaction, relief, and confidence were frequently reported, especially when students faced difficulty expressing ideas in English. These positive emotions suggest that Gemini not only facilitated writing but also reduced language-related anxiety, aligning with the affective component of the Triadic Model of Attitude (Maio et al., 2018).

The data, derived from interviews, also showed that students critically assessed the reliability and appropriateness of AI-generated content. This reflective stance aligns with the Technology Acceptance Model (Davis & Granić, 2024), highlighting how perceived usefulness is influenced by trust and critical evaluation. Many students described verifying or editing Gemini's suggestions, signaling an awareness of authorship and the importance of maintaining academic integrity.

Behaviorally, students demonstrated strategic use—relying on Gemini for idea generation while still exercising control over the final output. Their intention to continue using the tool, tempered by a recognition of its limitations, reflects a developing sense of digital maturity. This points to an expanded understanding of technology acceptance: beyond utility, students are beginning to assess AI tools through the lens of learning autonomy and ethical use.

These findings support and extend existing theoretical models by emphasizing the role of emotional and ethical judgment in students' technology adoption. They suggest a need for pedagogical practices that foster critical digital literacy, enabling students to engage with AI tools thoughtfully and responsibly as part of their academic growth.

CONCLUSION

This study set out to explore the perceptions and attitudes of vocational high school students majoring in culinary arts toward the use of Google Gemini as an AI-assisted tool in writing analytical exposition texts. In line with the research objectives, the findings demonstrate that students generally view Google Gemini as a beneficial support system throughout the writing process—especially in the stages of planning, drafting, and editing. The tool's accessibility, speed, and ability to provide linguistic and structural guidance made it an appealing resource for students, particularly those still developing proficiency in English as a Foreign Language (EFL).

The results revealed that students actively used Google Gemini not only to generate ideas but also to refine arguments, structure paragraphs, and revise grammar and coherence. Emotional responses were largely positive, with students expressing satisfaction, relief, and confidence in their writing when supported by the tool. However, some students expressed concerns about overreliance and questioned the accuracy of the AI's suggestions, indicating a growing awareness of the importance of critical thinking in digital environments.

The essence of these findings points to a new understanding of AI as not merely a writing tool, but a potential collaborator in the learning process—one that enhances student autonomy when used reflectively and responsibly. The study suggests that AI tools like Google Gemini can support metacognitive engagement, foster language development, and encourage process-based writing strategies, especially in vocational education contexts where time, resources, and language proficiency may be limited.

However, several limitations should be acknowledged. This research was conducted with a small sample of seven students from a single vocational high school culinary class, which limits the generalizability of the findings. Furthermore, the study only focused on student perceptions and self-reported behavior, not on actual changes in writing quality or long-term learning outcomes. Technological constraints such as device limitations and internet access were also noted, potentially affecting the full utilization of the AI tool.

Based on these findings, several recommendations can be made. First, educators should integrate AI tools like Google Gemini into writing instruction through structured, reflective activities that promote critical evaluation and ethical use. Second, teacher training and curriculum design should emphasize the pedagogical affordances of AI, moving beyond mere tool adoption to meaningful digital literacy education. Third, future research should expand the sample to include diverse student populations, subject

areas, and writing genres, and investigate the measurable impact of AI use on student writing performance over time. Additionally, theoretical development is warranted to refine existing frameworks such as the Technology Acceptance Model by incorporating emotional, social, and ethical variables specific to AI in educational settings.

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