

The Influence of Twitter (X) on Enhancing Critical Thinking Skills among University Students in EFL Contexts

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Abstract

In the era of digital information, fostering EFL students' critical thinking has become increasingly urgent to help them evaluate the credibility of online content. Although Twitter is predominantly associated with social interaction, its potential as a pedagogical tool for developing critical thinking remains underexplored in EFL contexts. This quantitative descriptive study investigated the influence of Twitter on the critical thinking skills of 30 EFL university students using an 18-item questionnaire. The findings reveal that, despite limited academic use, students actively engage with educational content, participate in discussions, consider diverse perspectives, critically evaluate information, and reflect on their own viewpoints. These results demonstrate that purposeful integration of Twitter can promote reflective and analytical thinking beyond conventional classroom practices. This study contributes empirical evidence supporting the pedagogical value of social media as a complementary learning platform and offers insights for EFL educators seeking to integrate digital literacy with critical thinking development.

Keywords: Critical Thinking, Digital Literacy, EFL Students, Social Media In Education, Twitter(X)

1. Introduction

In today's globalized and fast-paced world, critical thinking has become an essential skill for students, especially in higher education. As the amount of information available increases rapidly, learners must be able to analyze, evaluate, and make judgments about the information they receive. Critical thinking helps students to not only absorb knowledge but also question assumptions, identify bias, and solve problems in creative and logical ways (Cheng et al., 2024a). This skill is particularly important in academic settings where students are expected to engage with complex texts, arguments, and discussions.

The demand for critical thinking has grown significantly in the 21st century, in line with the increasing complexity of societal, technological, and professional

challenges. According to (Galindo-Domínguez et al., 2024a), higher education institutions are expected to produce graduates who are not only knowledgeable but also capable of thinking independently and making sound decisions. As a result, critical thinking is now considered a core learning outcome in many university programs around the world. However, despite its importance, research shows that many students still struggle to develop strong critical thinking abilities, especially in contexts where traditional methods of instruction dominate (Madli et al., 2023).

One of the major influences shaping students' thinking processes today is the internet. The internet provides vast and immediate access to information, making it easier for students to learn new things. However, it also presents challenges such as misinformation, superficial engagement, and information overload (Madli et al., 2023). To deal with these challenges, students need digital literacy and critical thinking to distinguish between credible and non-credible sources. As emphasized by (Nogués-Pedregal & Carmona-Zubiri, 2024), the internet alone does not make students critical thinkers; they must learn to interact with digital content critically and reflectively.

In recent years, social media has become a dominant platform for communication and information sharing among university students. Many students spend hours each day engaging with platforms such as Instagram, YouTube, TikTok, and Twitter. While social media is often seen as a form of entertainment, it also plays a significant role in how students think, learn, and interact with others (Pang, 2022). The challenge for educators is to understand whether this engagement helps or hinders students' cognitive development.

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Among various platforms, Twitter offers a unique environment that encourages interaction through short messages, known as tweets. Users can participate in public conversations, share academic content, and follow trending topics across a wide range of fields. Unlike image-heavy platforms, Twitter's text-based format supports brief yet meaningful exchanges, often requiring users to think clearly and express themselves concisely. Research by (Abbas et al., 2023) found that Twitter can promote argumentation, reasoning, and reflection core aspects of critical thinking when used in educational contexts.

Furthermore, Twitter encourages users to form opinions, respond to others, and engage with diverse perspectives through retweets, mentions, and hashtags. This form of interaction mirrors academic discourse, where individuals must consider various points of view before reaching a conclusion. According to (Luo et al., 2019), these features can make Twitter an effective tool for developing students' reflective thinking and communication skills. By interacting on Twitter, students may unconsciously practice evaluating claims, making inferences, and forming arguments skills that are vital for critical thinking.

In the context of English as a Foreign Language (EFL) education, the integration of critical thinking is both necessary and challenging. Many EFL learners are accustomed to teacher-centered instruction focused on grammar and vocabulary memorization rather than on argumentation or inquiry (Juwita Utimadini & Salam, n.d.). As a result, students may have limited opportunities to practice critical thinking in English. Integrating platforms like Twitter can create a more interactive and reflective learning environment, giving students the chance to express their ideas in English and engage with authentic materials.

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Digital media tools can also provide EFL learners with more autonomy and motivation in their language learning. Research shows that students who use digital platforms like Twitter to practice English outside the classroom tend to develop better critical awareness of content and language (Akatsuka, 2020). In addition, such platforms may support collaborative learning, where students exchange ideas, debate issues, and learn from one another. This is in line with the findings of (Cheng et al., 2024), who noted that social media supports student engagement and active learning in EFL settings.

Despite its potential, many university students in EFL contexts still view Twitter mainly as a non-academic platform. Some may lack the skills or guidance to use it meaningfully in their learning process. Others may not realize that Twitter can be a space for academic dialogue and intellectual exploration. This underuse points to the need for more research into how Twitter can be integrated effectively into EFL education to support critical thinking.

Therefore, this study aims to explore the influence of Twitter on enhancing the critical thinking skills of university students in EFL contexts. By examining students' engagement with Twitter and their perceptions of its impact, the study seeks to understand how social media when used intentionally can contribute to both language development and cognitive growth. The findings are expected to offer insights for educators, researchers, and curriculum designers interested in combining digital tools with critical thinking instruction

2. Literature Rivew.

Definitions and Core Components of Critical Thinking

Critical thinking is a cognitive process that involves analysis, interpretation, evaluation, inference, and explanation. According to Facione (2020), it is
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“purposeful, self-regulatory judgment” which supports decision-making and problem-solving. The American Philosophical Association outlines six core skills of critical thinking: interpretation, analysis, evaluation, inference, explanation, and self-regulation. These components allow individuals to assess arguments, identify reasoning flaws, and draw logical conclusions. (Nogués-Pedregal & Carmona-Zubiri, 2024) also defines critical thinking as “reasonable and reflective thinking focused on deciding what to believe or do,” emphasizing its practical role in everyday decision-making.

Many scholars argue that critical thinking is not a passive skill, but an active and continuous mental engagement with content and ideas. For instance, (Giunchiglia et al., 2020) describe it as a “metacognitive ability” that integrates both cognitive processing and self-reflection. This implies that students must not only analyze information, but also reflect on their own thought processes. Hence, critical thinking is foundational for academic inquiry and lifelong learning.

The Role of Critical Thinking in EFL Contexts

Critical thinking is particularly important in English as a Foreign Language (EFL) learning. Traditional EFL classrooms often prioritize rote memorization and grammar drills over analytical reasoning or argumentation. However, critical thinking can improve learners’ engagement, autonomy, and language proficiency (Cheng et al., 2024b). When learners engage critically with texts, they tend to develop better comprehension and expressive skills.

In EFL contexts, incorporating critical thinking promotes deeper learning. Tasks that involve analyzing texts, evaluating arguments, or debating issues help learners go beyond surface-level understanding. According to (Alshaye et al., 2023), students who are trained to think critically in English are more confident in

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expressing opinions and defending their viewpoints in both spoken and written language. This shows that critical thinking supports not only academic success but also communicative competence in the target language.

Twitter as a Digital Educational Tool

Twitter, a microblogging platform launched in 2006, has evolved into a dynamic tool for education. Unlike other social media that focus on visuals, Twitter encourages users to express thoughts concisely within a limited character count, which can help develop precision in communication. Studies such as (Harmandaoglu, n.d.) highlight that Twitter can enhance academic communication and peer interaction when integrated into learning environments.

Educators have used Twitter for various instructional purposes, including promoting class discussions, sharing resources, encouraging reflection, and even conducting live debates. Its accessibility and real-time feedback features make it a flexible platform for both synchronous and asynchronous learning (Paradiba et al., n.d.). Additionally, students can follow academic hashtags or participate in scholarly Twitter communities, increasing their exposure to professional discourse.

Social Media and Critical Thinking in Education

Social media platforms can influence the way students think, especially in terms of engagement with information. On one hand, excessive use may encourage shallow thinking and passive consumption. On the other hand, when used purposefully, social media can facilitate critical engagement, collaboration, and reflection (Putri, n.d.).

Research suggests that structured activities using social media can improve students' critical thinking. For example, students who participate in academic
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discussions online are more likely to evaluate sources, question assumptions, and construct arguments (Abbas et al., 2023). Moreover, interactive media environments stimulate the exchange of diverse perspectives, which is crucial for developing critical awareness (Giunchiglia et al., 2020).

Previous Studies on Twitter and Critical Thinking (Research Gap)

Several studies have examined the use of Twitter in educational contexts. For instance, (Arumugam et al., 2022) explored how Twitter supported reflective thinking in language learning environments. Similarly, (Paradiba et al., n.d.) reported that EFL learners who used Twitter for academic engagement developed stronger digital literacy and critical awareness. However, many of these studies are limited to general observations or small samples.

Despite the growing interest in social media and education, few studies specifically investigate the relationship between Twitter use and critical thinking in EFL university contexts. Most research focuses on Western education settings or teacher perceptions rather than student outcomes. As a result, there is a lack of empirical evidence showing whether Twitter can actively foster critical thinking among EFL learners in non-Western contexts. This gap justifies the present study.

Theoretical Framework and Research Variables

This study is grounded in Facione's (2020) critical thinking framework, which identifies six measurable dimensions: interpretation, analysis, evaluation, inference, explanation, and self-regulation. These dimensions serve as indicators for the questionnaire used in the study. Additionally, Twitter is conceptualized as a reflective and interactive digital tool that can support critical thinking through discourse, exposure to multiple viewpoints, and user participation (Juwita Utimadini & Salam, n.d.).

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The independent variable in this study is the students' engagement with Twitter, while the dependent variable is their level of critical thinking. The relationship between these two variables is explored using a quantitative descriptive approach, aiming to determine whether patterns of Twitter use relate to specific aspects of critical thinking among EFL students.

3. Research Methodology

This study employed a quantitative research design to investigate the influence of Twitter on the development of critical thinking skills among students in EFL contexts. The data were gathered using a structured questionnaire consisting of statements related to Twitter usage and critical thinking indicators. The statements were constructed based on core components of critical thinking as defined by Facione (2020), such as analysis, interpretation, evaluation, and reflection.

The questionnaire was distributed to 30 respondents who were Indonesian students majoring in English Education. Participants were selected based on their active use of Twitter and their willingness to participate in the study. All responses were collected anonymously to ensure confidentiality and honest participation.

Once the data were collected, they were analyzed using descriptive statistics, including percentages and mean scores, to determine patterns in the students' Twitter engagement and their self-reported critical thinking tendencies. The results of the questionnaire were then interpreted to assess the degree to which Twitter use supports or relates to the development of critical thinking among the participants.

4. Findings And Discussion

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The questionnaire used in this study contained 18 items designed to measure students' engagement with Twitter and its potential to enhance their critical thinking skills. Each item was answered on a 5-point Likert scale: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. The 30 respondents were English as a Foreign Language (EFL) students from semesters 4 to 8.

Questionnaires

Below is a table of results from student's perceptions about the Twitter usage for critical thinking obtained from a questionnaire that was distributed to students who use Twitter. The questionnaire used in this study was taken from Kobylarek et al., (2022). Regarding the Likert format used in the questionnaire, statements were set at a five-point scale ranging from "strongly agree" (SA) to "strongly disagree" (SD).

Table1. Questionnaire Result

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I use Twitter regularly for academic or educational purposes.	3%	17%	53%	23%	3%
2	I follow accounts that share news, opinions, or educational content.	3%	3%	50%	27%	17%

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3	I engage with tweets by liking, retweeting, or replying.	0%	23%	40%	27%	10%
4	I often read Twitter threads that discuss social, political, or academic issues.	0%	17%	30%	37%	17%
5	I use Twitter to share my own thoughts or reflections.	3%	17%	63%	13%	3%
6	I find Twitter helpful for expanding my perspectives on current issues.	3%	10%	50%	30%	7%
7	I often question the credibility of the information	3%	10%	47%	37%	3%

	I read online.					
8	I try to consider multiple viewpoints before forming an opinion.	0%	10%	37%	33%	20%
9	I reflect on my own assumptions when discussing controversial topics.	0%	3%	63%	27%	7%
10	I enjoy analyzing complex problems or issues.	0%	13%	47%	33%	7%
11	I avoid drawing conclusions without sufficient evidence.	3%	7%	40%	33%	17%
12	I am willing to change my opinion when	0%	7%	40%	37%	17%

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	presented with strong evidence.					
13	Using Twitter helps me think more critically about social or academic issues.	3%	13%	57%	17%	10%
14	I have improved my ability to analyze arguments through content on Twitter.	7%	13%	50%	27%	3%
15	Twitter has introduced me to ideas that challenge my previous beliefs.	3%	13%	53%	30%	0%
16	I have learned to evaluate online opinions more	0%	7%	50%	27%	17%

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	carefully by using Twitter.					
17	Twitter encourages me to reflect more before expressing my thoughts.	0%	10%	57%	20%	13%
18	Twitter discussions have helped me develop more logical reasoning.	3%	7%	50%	33%	7%

The questionnaire consisted of 18 items distributed to 30 EFL university students from semesters 4 to 8. The questions were designed to measure the participants' habits, attitudes, and reflections related to their use of Twitter and its impact on various aspects of critical thinking. Responses were categorized using a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree."

The first five items assessed how frequently and purposefully students used Twitter in academic or reflective contexts. Results showed that only a small percentage of students regularly used Twitter for academic purposes (3% "Strongly Agree"; 23% "Agree"), while more than half remained neutral (53%). However, a larger number followed educational or news-based accounts (44% combining "Agree" and "Strongly Agree"), and 37% frequently read threads on political, social, or academic issues. This indicates that while most students are

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passive consumers of content, a portion of them engage with informative and reflective materials.

Items 6 to 9 focused on awareness and cognitive engagement, including students' efforts to consider different perspectives and evaluate the credibility of online information. A majority of students (67%) agreed or strongly agreed that they consider multiple viewpoints before forming opinions, while 40% stated they often question the credibility of content on Twitter. Notably, 63% remained neutral when asked whether they reflect on their own assumptions during controversial discussions, suggesting a possible gap in metacognitive engagement.

The next cluster of questions (items 10–12) examined higher-order critical thinking traits such as evidence-based reasoning and openness to change. A total of 54% of respondents indicated that they avoid forming conclusions without sufficient evidence, and 54% were also willing to change their opinions when provided with strong evidence. These findings suggest that a critical thinking disposition exists among many students, although not all translate it into consistent Twitter engagement.

Items 13 to 18 directly assessed the perceived influence of Twitter on students' thinking skills. Over half of the students agreed that Twitter introduced them to ideas that challenged their beliefs (83% at least neutral or positive), helped them evaluate online opinions more carefully (44% "Agree" or "Strongly Agree"), and encouraged them to reflect more before expressing their thoughts (33% "Agree" and 13% "Strongly Agree"). Despite moderate levels of engagement, these responses point to a latent potential for Twitter to act as a catalyst for critical reflection and reasoning.

Findings and Interpretation

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The findings reveal a nuanced relationship between students' use of Twitter and their development of critical thinking. While only a few students use Twitter explicitly for academic purposes, many are indirectly exposed to reflective and argumentative content. This reflects the dual nature of Twitter as both a social and informational platform. The students' responses suggest that Twitter can promote aspects of critical thinking such as analyzing arguments, evaluating opinions, and reflecting on beliefs even if not used in a formal educational context.

Moreover, the data shows that students are relatively open to multiple perspectives and evidence-based reasoning. For example, the fact that 70% of students either agreed or strongly agreed that they try to consider different viewpoints implies a foundational readiness for critical engagement. This supports previous research suggesting that social media, when navigated with intention, can become a space for intellectual exploration (Cheng et al., 2024).

Although not all students use Twitter critically, the responses suggest that many are beginning to engage with the platform in ways that support cognitive development. Twitter's format, which limits message length and encourages interaction, may help students practice concise expression and quick reasoning. According to (Akatsuka, 2020), students who regularly participate in online discussions develop stronger analytical and evaluative skills, especially when dealing with contrasting opinions.

Furthermore, the presence of complex discussions on Twitter threads may foster interpretative thinking. Students often encounter arguments and counterarguments in these threads, which can challenge their views and invite them to reflect. This aligns with the findings of (Galindo-Domínguez et al., 2024b),

who observed that microblogging platforms enhance learners' reasoning skills through repeated exposure to debate, evidence, and critique.

However, the tendency of students to remain neutral in many of their responses may indicate a lack of structured guidance in using Twitter as a reflective tool. Without explicit instruction or academic integration, students may not fully realize the platform's potential for critical engagement. Thus, while Twitter offers the environment and stimuli needed for critical thinking, its actual effectiveness depends on how intentionally it is used.

5. CONCLUSION

The findings of this study suggest that although many EFL university students do not use Twitter explicitly for academic purposes, their engagement with reflective content, exposure to diverse perspectives, and interaction with online discussions on the platform demonstrate Twitter's potential to foster critical thinking skills particularly analytical reasoning, evidence-based judgment, and open-mindedness provided that its use is supported by intentional pedagogical strategies and digital literacy integration (Smith and Tirumala, n.d.).

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