

# The Impact of Social Media and 4C Skills (Critical Thinking, Communication, Creativity, Collaboration) in English Language Learning: Students' voices

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## ABSTRACT

This study explores students' subjective perspectives on the use of social media platforms (e.g., TikTok, Instagram, YouTube) in developing their 21st-century 4C skills (Critical Thinking, Communication, Creativity, Collaboration) within an English Language Learning (ELL) context. Using descriptive qualitative methods with semi-structured interviews, this study synthesizes wide-ranging perceptions on the use of platforms and how they facilitate students in improving 4C skills in English learning. The results were further analyzed thematically. Key findings indicate that, although students recognized that social media is an accessible and engaging tool for English learning, its use for developing 4C skills is not without significant challenges. Students posited that social media effectively facilitates the practice of communication skills (writing and speaking), stimulates creativity, and supports online collaboration skills. However, they also suggested that the development of critical thinking is hampered by the difficulties in evaluating the credibility of information online. The practical implications of this study highlight the need for lecturers to design structured pedagogical support and for policymakers to integrate digital literacy into the curriculum. Without strategic guidance, the potential of social media to enhance 4C skills is at risk of being underutilized.

**Keywords:** *Collaboration, communication, creativity, critical thinking*

## Introduction

Social media has become an integral part to everyday life, including in the field of education (Saini & Mir, 2023). A survey by the Indonesian Internet Service Providers Association (APJII) on February 7, 2024, noted that most internet users are Generation Z (born 1997-2012) students. This generation can be categorized as *digital natives*, namely those born and raised in the era of technology that influences how they think and learn (Machmud, 2014). Therefore, platforms like Instagram, YouTube, and TikTok not only can be used for entertainment, but also as interactive and engaging learning tools (Caramihai et al., 2023).

The increasingly digitalized and globalized 21st-century education demands mastery of the 4C skills—Critical Thinking, Creativity, Collaboration, and Communication (P21, 2019). This is particularly important in the field of English skills, as the level of English proficiency in Indonesia continues to face challenges, ranking 80th out of 116 countries

according to the EF English Proficiency Index (EPI) 2024.

Conventional classrooms have been designed to develop these skills through established methods (Annisa et al., 2024; Marwa et al., 2024). For example, a study by Mahmud et al. (2016) demonstrates the effectiveness of project-based activities using authentic materials to improve listening comprehension skills. The findings highlighted that these project activities also enhance students' critical thinking, collaboration, and communication abilities. However, several studies indicated that digital classrooms present more dynamic opportunities for authentic engagement, leveraging diverse resources and facilitating real-time collaboration (Ratih & Fauziati, 2024).

When it comes to group projects involving social media, students are encouraged to engage in real-time sharing, which fosters both critical thinking and creativity—skills that traditional classrooms may struggle to cultivate to the same degree (Pădurean, 2025). While

both traditional and digital classrooms aim to promote the 4C skills, digital environments offer greater potential for immersive learning experiences. These experiences lead to enhanced student engagement and a deeper understanding, ultimately providing more comprehensive opportunities for skill development in ways that conventional methods may not achieve.

The integration of technology in the teaching and learning process is crucial to helping digital sensitivity and literacy, especially for the digital native generation (Machmud & Hasan, 2017). Teachers are no longer the only source of knowledge because students can easily access materials and information through various digital platforms, including social media (Machmud, 2014).

According to Abedi & Elahi (2023), social media offers various advantages as a learning medium. Some of the benefits are, Authentic Content: Access to diverse, engaging, and authentic learning materials such as news, videos, and music. Interaction and Output: Provides a means for real English practice through comments, uploads, messages, or online discussions. Informal Learning Spaces: Learning can happen anytime and anywhere, often in relaxed and intrinsically motivated situations.

In the field of English learning, a study by Haque (2023) showed that students responded positively to integrating social media into learning, which resulted in increased vocabulary and writing skills. Nevertheless, this study also indicated that the use of social media is also accompanied by negative impacts that require self-limitation, time management, and good management of content access. Another study emphasized on several factors for effective use of social media: students' understanding of how to use it properly, adequate access, and the ability to evaluate and limit its use Abdul Sakti (2023).

Vygotsky's Social Constructivism and Siemens & Downes' Connectivism are relevant learning theories in this context. *Social Constructivism*: this theory emphasizes the importance of social interaction in forming knowledge. Vygotsky argued that students learn more efficiently when working with others in a supportive environment. The *Zone of Proximal Development* (ZPD) concept explains how students' interactions on social media with peers or content from experts can help them

develop the 4Cs of English. *Connectivism*: this theory views technology as a space for learning, where learning is the process of connecting various sources of information. The principles of connectivism help analyze how students build their learning networks through social media to develop 4C skills.

The P21 framework aims to equip students with the skills, knowledge, and expertise to succeed in the 21st century (Karaca-Atik et al., 2023). The framework includes four core skills (4Cs) (P21, 2019): *Critical Thinking*: This ability is critical amidst the proliferation of information whose credibility is questionable. Critical thinking includes analyzing, making decisions, evaluating evidence, and reflecting critically on the learning process. Optimizing the use of social media in language learning can maximize the development of this skill (Hishamuddin et al., 2023). *Communication*: This skill includes the ability to listen, gather information, and convey ideas effectively verbally, in writing, and nonverbally. Social media, with its interactive features, provides endless opportunities for students to practice communication skills (Canale & Swan, 1980; Partono, et al., 2021). *Creativity*: This skill refers to the ability to generate, develop, and evaluate new ideas (Monib, 2023). It can be trained, and social media like TikTok have been shown to facilitate this process through content creation (Ascencio, 2022). *Collaboration*: This skill works effectively and respectfully in a team to achieve a common goal (Monib, 2023). Social media provides an interactive space for its users to access materials, share information, and collaborate (Saini & Mir, 2023).

To analyze students' behavior and beliefs towards using social media in learning, this study adopts two main theories as conceptual tools, namely the Self-Determination Theory (SDT) and the Technology Acceptance Model (TAM). Self-Determination Theory (SDT), proposed by Deci & Ryan (2000) states that humans have innate tendencies and psychological needs that motivate behavior. The three core needs in SDT are autonomy, competence, and relatedness. This theory helps explain why students voluntarily engage in learning activities on social media. This platform can satisfy these psychological needs by: Autonomy (offering flexible learning options; choosing what, when, and how to learn), Competence (Allowing them to show

progress and feel capable), and Relatedness (supporting social connections with peers or learning communities). The Technology Acceptance Model (TAM) by Davis (1989) highlights two main factors that predict a person's attitude toward using information systems: perceived ease of use and usefulness. This theory is conceptually relevant to understanding students' perceptions of social media's usefulness and ease of use in learning English and 4C skills, which will ultimately influence their attitudes and behavioral intentions.

These two theories serve as a theoretical basis and a framework for analyzing students' motivation, attitudes, and behavior in using social media for learning purposes, as will be reflected in the research findings. Although many studies have confirmed that the integration of information and communication technology (ICT) can effectively develop 4C skills (No & Fima, 2024), a significant research gap remains regarding a holistic understanding of students' subjective perspectives. Little research has specifically explored students' experiences and views on how social media platforms simultaneously affect all four 4C skills in English language learning (Br Batubara et al., 2024). Initial observations on students of the English Language Education Study Program (ELESP) at Gorontalo State University revealed that, although they utilized social media as a learning resource, their use was not consciously structured to develop 4C skills.

Therefore, this study aims to explore in-depth the perspectives of ELESP students at UNG regarding the role of social media in developing 4C skills (Critical Thinking, Communication, Creativity, and Collaboration) within the context of English language learning. By gaining students' views on how they perceive the experiences, views, challenges, and benefits of social media utilization on their ELL journey, the study intended to provide valuable input for educators in designing more relevant, more practical and more up-to-date learning strategies and utilizing the potential of technology inherent in students' lives.

## Method

This study used a descriptive qualitative method to gain an in-depth and holistic understanding of participants' experiences, perceptions, and opinions (Creswell, 2012; Mackiewicz, 2018). This approach was chosen

because it focused on exploring the subjective meanings that students attribute to the use of social media in developing 4C skills. The research participants were three active students from the English Language Education Study Program (ELESP) at Gorontalo State University, who were selected using a purposive sampling technique. The selection criteria ensured that participants had experience using social media platforms (such as Instagram, TikTok, and YouTube) to access educational content and practice their English skills, and participated voluntarily. This process was based on considerations of variations in frequently accessed platforms, types of content, duration of use, and the potential to achieve data saturation, which prioritizes data depth over generalization in qualitative research (Sampieri, 2014; Ascencio, 2022).

Data were collected through individual, semi-structured interviews lasting between 45 and 90 minutes. This method provided the flexibility to ask probing questions *and* explore the nuances of students' experiences (Sugiono, 2013). The interview framework included opening questions (about general social media usage habits), core questions (organized around each of the 4C skills), and closing questions (about challenges and suggestions). An example of a core question was, *"How do you think your use of social media has helped or hindered your ability to think critically?"*

The data collected was analyzed using thematic analysis, which consists of six steps by Braun & Clarke (2019). The steps include: (1) familiarizing oneself with the data by transcribing and reading the interviews repeatedly; (2) creating initial codes from the data; (3) searching for potential themes by grouping similar codes; (4) reviewing the themes for coherence and data support; (5) defining and naming final themes; and (6) compiling the final report, presenting the findings narratively with illustrative data quotes to answer the research questions (Braun & Clarke, 2019).

To ensure validity and reliability in this research, the process of data collections and analysis was conducted carefully. The participant's selections process was employed, the key themes emerged and interpretations were verified by the participants through needed follow-ups. This repetitive process was done to accurately show students real experiences. Further, ethical considerations

including informed consent and assurance of participant anonymity, were explained before each interview, and permission to audio-record was acquired.

## Findings and Discussion

The findings of this study revealed a diversity of student perspectives regarding the utilization of social media (Instagram, TikTok, Twitter, and YouTube) in the development of 4C skills (Critical Thinking, Communication, Creativity, and Collaboration) in English language learning. These skills are presented and discussed in an integrated manner, connecting students' subjective experiences with theoretical frameworks and relevant previous research. The findings show complex and often ambivalent relationships. In general, students view social media as a platform with two sides: on the one hand, it is exciting and

easy to access, but on the other hand, it requires caution. This perception is influenced by factors such as the type of content, personal motivation, and perceived learning experience. Two out of three participants agreed that social media makes learning interesting because the content is diverse and not boring. However, one participant expressed a different view, emphasizing that the credibility of the content from experts is more important than the mere appeal of entertainment, because he considered it more effective for structured learning. Their motivations for using social media as a learning tool varied, ranging from the demands of the times to a proactive desire to use screen time more productively.

The following table summarizes students' subjective perspectives on the general use of social media for English language learning.

**Table 1. Students' General Perspectives on Social Media Use**

Themes	Summary and Quotations
<b>Attractiveness and Ease of Access</b>	Social media is attractive because it offers varied, visual, and engaging content. It's easy to access anytime, making it a flexible learning tool outside of formal classes. <ul style="list-style-type: none"> <li>• <i>"I use Instagram because I find it interesting with many engaging and educational contents."</i> (Informant 2)</li> <li>• <i>"I don't find it very interesting. But we choose the content ourselves."</i> (Informant 3)</li> </ul>
<b>Motivation for Use</b>	The motivation stems from recognizing the need to use time more productively on social media, which is seen as an alternative to formal learning. <ul style="list-style-type: none"> <li>• <i>"Today's lifestyle requires us to use phones for learning."</i> (Informant 1)</li> <li>• <i>"I often use social media to study."</i> (Informant 3)</li> </ul>
<b>Learning Effectiveness</b>	Social media helps develop various English skills such as vocabulary, grammar, pronunciation, and listening comprehension. Students seek educational content to improve their skills. <ul style="list-style-type: none"> <li>• <i>"I learn English skills by following educational Instagram accounts."</i> (Informant 1)</li> <li>• <i>"I started writing down new words I didn't understand and found them on Google."</i> (Informant 3)</li> </ul>

Students perceive social media as an easily accessible and engaging platform for learning. They are attracted to social media for English learning because of its engaging nature and the wide availability of authentic materials that effectively help them develop various English skills, including pronunciation, structure, grammar, listening, and vocabulary (Abedi et al., 2023; Utari, et al., 2023). However, the credibility of the content strongly influences this perception. Two out of three participants agreed that social media makes learning fun because the content is varied and not boring. One participant expressed her disinterest, arguing that she prefers content from verified experts as it guarantees more credibility and is considered more effective for structured learning. These findings can be interpreted through the Technology Acceptance

Model (TAM) by Davis (1989), where perceived ease of use and perceived usefulness influence students' attitudes. The diverse and engaging content makes the platform easy and valuable for most students. However, for others, usability is reduced if the credibility of the content is questioned, despite the platform being easily accessible.

Social media platforms utilized as learning media by university students (APJII, 2024), suggested that the primary motivation for using social media for learning comes from external factors such as "the demands of the times" and a proactive internal desire to use screen time productively. This aligns with Self-Determination Theory (SDT) by Deci & Ryan (2000), where students use their autonomy to direct self-directed learning and build competence. They see social media as an



alternative to formal classroom learning, which can be accessed from various supporting sources. All participants agreed that social media is effective for learning outside formal class hours.

When examined more deeply on each of the 4C skills, students' perspectives become more nuanced. They have consciously and unconsciously utilized various social media features to practice each skill, but they also face

different challenges for each skill. Their experiences show that the potential of social media for 4C development is highly dependent on the type of activity undertaken and the level of critical awareness of the user.

The following table presents a detailed exploration of students' perceptions of developing each of the 4C skills through social media.

**Table 2. Influence on Critical Thinking Skill**

4C Skills	Critical Thinking
Summary and Quotations	<p><b>Benefits:</b> Exposure to various information, opinions, and perspectives in English encourages students to analyze and question content, helping them compare sources and avoid taking information at face value.</p> <p><b>Challenges:</b> The main difficulty is evaluating the credibility of information. Students often feel confused with conflicting data and must self-verify to avoid hoaxes. This indicates a gap between exposure and mature filtering skills.</p> <ul style="list-style-type: none"> <li>• "I encounter content and articles that make me ask, 'What does this mean? Which one is true?'" (Informant 1)</li> <li>• "I check news on Instagram and immediately search for the truth." (Informant 1)</li> <li>• "Sometimes news presented in English is unclear and not well-explained, making me search for clearer content." (Informant 3)</li> </ul>

In addition, all participants agreed that social media also practiced their critical thinking skills through exposure to English-language content from various perspectives. Although a lot of information is available, the credibility of social media content is often questioned. The exposure often leads to confusion. Participants face difficulties in evaluating the credibility of information and often have to verify it themselves to avoid hoaxes, as one participant pointed out.

In line with the study by Mohd Hishamuddin et al., (2023), which showed the potential of social media to hone HOTS and critical thinking, all participants admitted to facing situations where they received dubious information that needed to be evaluated. This curiosity, consciously or unconsciously, trained them to think critically. One participant was

confused when she came across content from different sources with conflicting accounts. Another participant highlighted the English news, which was sometimes ambiguous and not comprehensive, prompting her to seek comparative information. These practices show that the students practiced analytical and evaluation skills as part of their critical thinking skills.

However, the findings highlighted that students intuitively performed these evaluations without formal guidance, suggesting a gap between exposure and mature critical filtering skills. Looking at the participant responses, there is a need for digital and media literacy, which is also discussed in the research conducted by Zainal (2020) and Machmud & Hasan, (2017).

**Table 3. Influence on Communication Skill**

4C Skills	Communication
Summary and Quotations	<p><b>Benefits:</b> Social media allows students to practice both written and spoken communication, improving language fluency and comprehension.</p> <p><b>Challenges:</b> Self-confidence varies. Some feel more confident after interacting, while others are hesitant, especially with formal/informal language use. The quality of interaction plays a big role.</p> <ul style="list-style-type: none"> <li>• "I usually use the Ome TV app to engage directly with native speakers... in addition to testing my English proficiency, such as speaking and listening skills, it's also a test of courage..." (Informant 1)</li> <li>• "Hmm, for confidence? I don't feel that confident yet, and I'm not very fluent, but at least I can understand it..." (Informant 2)</li> <li>• "I'm more fluent now, yes, I feel more fluent because I'm used to telling stories with English speakers." (Informant 3)</li> </ul>

In developing communication skills, the

results revealed that participants consciously

and unconsciously utilized social media to practice these skills. One participant admitted that she often communicates intensively with English-speaking friends, which trains communication and writing, reading, grammar, and vocabulary skills. Another participant mentioned writing practice, which involves making captions on photos or uploading stories. From these answers, the participants have experience practicing communication skills directly and indirectly through writing. On the other hand, some social media platforms also offer direct verbal interaction features. Two out of three participants admitted using social media to interact directly with native speakers. One participant used the *Ome TV* app to test her speaking and listening skills. Another participant shared her experience making video calls with acquaintances from abroad to share stories of their daily lives in English, which she implicitly recognized as a communication skills exercise. This finding reinforces the findings by Namaziandost & Nasri (2019) and Haque (2023), where social media has become an arena for practicing writing and speaking skills,

which are communication indicators (P21, 2019).

In addition, some students stated that interactions on social media platforms helped improve their confidence, fluency, and understanding of spoken language from different accents. Some found it helpful, some felt less confident, even though they could understand, and some found it helpful due to their habit of discussing with strangers. These variations can be explained through the lens of SDT, specifically the need for competence. In addition, communicative competence (Canale & Swan, 1980) includes linguistic and pragmatic aspects, where social media exposes authentic language use (Abedi et al., 2023). Confident participants were more likely to experience successful interactions, thus strengthening their sense of competence. In contrast, those who feel less confident may not get enough quality interactions to fulfill their need for competence, which suggests that the quality of interactions and informal feedback play an important role.

**Table 4. Influence on Creativity Skill**

4C Skills	Creativity
<b>Summary and Quotations</b>	<p><b>Benefits:</b> Social media is a rich source of inspiration, encouraging students to shift from passive consumers to active content creators. They are motivated to produce their own content, such as videos, short stories, or English subtitles.</p> <p><b>Challenges:</b> No significant challenges were mentioned. Social media was consistently seen as a driver of creativity.</p> <ul style="list-style-type: none"> <li>• "Yes, of course. I can use or express myself in English, for example, when we upload content on social media with my creativity, including captions in English..." (Informant 1)</li> <li>• "I've done it. Specifically, in the context of a short story, I saw many people documenting themselves in the form of vlogs... then I was inspired and thought, 'I want to create my own version.'" (Informant 3)</li> </ul>

Regarding the improvement of the creativity skill, students argued that the diversity of social media content makes it a rich source of inspiration for innovation and creativity, arousing students' enthusiasm to express themselves creatively in English. For example, seeing content, listening to songs, or reading posts from friends who use English that they think is cool triggers creativity to create something similar with a new twist. Social media provides encouragement and space for those who want to express ideas, give opinions, and create things. Monib (2023) stated that creativity skills can be honed and developed, but it should be remembered that each person's level of creativity certainly varies, even though they are at the same stage or treatment.

Participants suggested that students must

actively use platforms such as TikTok and Instagram as sources of inspiration and media for creativity, consistent with the literature highlighting their potential to foster creativity (Al-rahmi et al., 2018; Ascencio, 2022; Elaine & Fuady, 2023). As tangible evidence of the development of creativity, the participants claimed to have created creative content inspired by social media. Examples include making a group assignment video about *takjil* (breakfast snacks) hunting in English uploaded to YouTube, creating story or subtitle uploads, and writing short stories inspired by narrative vlogs. This shows the transformation of students from passive consumers to active producers. Overall, my findings are based on students' perceptions that social media such as Instagram, TikTok, and YouTube are not only

a passive source of inspiration but also actively used as a medium for creative practice and self-

actualization in English language learning.

**Table 5. Influence on Collaboration Skill**

4C Skills	Collaboration
Summary and Quotations	<p><b>Benefits:</b> Social media platforms greatly facilitate remote group work, offering flexibility in time and place. Students use these platforms to collaborate on projects, like creating videos for coursework.</p> <p><b>Challenges:</b> Online collaboration lacks face-to-face interaction, leading to potential miscommunication. The "feel" of teamwork is diminished.</p> <ul style="list-style-type: none"> <li>• "For example, my group and I created a video in English for our heritage course and uploaded it to YouTube." (Informant 1)</li> <li>• "The downside is that it reduces the feeling of connection because we don't meet in person. It feels somewhat limited in expressing or discussing ideas directly." (Informant 2)</li> <li>• "I feel that collaboration through social media lacks the opportunity for human-to-human interaction." (Informant 3)</li> </ul>

On the other hand, social media also allows students to collaborate with others in learning English. Participants stated this is possible, especially since the COVID-19 pandemic shifted learning to virtual spaces. One participant joined a study group she found through social media to discuss English. Another participant mentioned that social media facilitated their collaboration on group assignments. An example was creating a short video for a course assignment that involved designing, shooting, editing, and publishing on YouTube. They also used platforms such as TikTok and Instagram to find ideas and materials to facilitate the assignment. This suggests that social media provides a space for those with similar goals to work together (Abdul Sakti, 2023; Saini & Mir, 2023). These findings support the potential of social media as a facilitator of collaboration, as suggested by Connectivism by Siemens & Downes (2005) and Social Constructivism by Vygotsky.

However, the findings also revealed functional but shallow utilization. Students acknowledged the advantages of online collaboration, such as flexibility of time and place. This experience reflects Siemens & Downes' (2005) principle of connectivism, which views learning as a connecting process that can occur using non-human devices. However, while online collaboration offers flexibility of time and place, participants also recognized its disadvantages. They were concerned that this ease of access could take away the "feel/nuance" of collaboration and limit human interaction, leading to misunderstandings. This suggests that there are two sides to consider: ease of access and the challenge of maintaining the quality of discussions to avoid misunderstandings.

The students' challenges ranged from technical issues such as an internet connection, difficulty understanding the context of the content, and a lack of structured feedback to significant difficulties in sorting out accurate information. The main recognized risk is exposure to inaccurate information (hoaxes), which requires critical analysis skills and self-control. This aligns with research by Zainal (2020), who identified various challenges in using learning media that require self-control and content management. Furthermore, a study by Machmud (2014) emphasized increasing digital literacy to support the effectiveness of using social media or integrating technology into the learning process.

Suggestions from students focused on improving the quality and security of information through verification features or hoax content filters. In addition, better features to support collaboration in English projects are also expected. On the other hand, the importance of user awareness and self-management skills to maximize the wise use of social media was also highly emphasized. To address these concerns, one of the things that can be done to overcome them is the application or mastery of digital and/or media literacy (Machmud & Hasan, 2017).

Thus, this discussion confirms the main argument of this research: Understanding students' subjective perspectives is crucial. Their experiences and views provide important insights beyond the theoretical potential of technology. These findings point to the need for a more balanced and critical approach to integrating social media into English language learning, which capitalizes on its strengths and actively equips students with digital strategies and literacy to overcome its challenges.

## Conclusion

This study concludes that the perception of ELESPP students at Universitas Negeri Gorontalo towards the role of social media in developing 4C skills is multifaceted and ambivalent. The finding indicated that, on the one hand, social media is recognized as a highly accessible, engaging, and flexible platform for informal learning, particularly in facilitating communication practices, stimulating creativity, and enabling collaboration. On the other hand, its optimal utilization faces significant challenges. The most problematic area is the development of critical thinking, where students struggle to evaluate the validity of information. Furthermore, the impact on communication confidence varies, and online collaboration is often perceived as lacking depth and substance. Thus, the great potential of social media has not been fully realized without student

Based on these findings, the following recommendations for English students, educators' and future researches are proposed. Students are encouraged to proactively improve their critical literacy by cross-verifying. This is a direct way to practice their critical thinking skills for either academic and non-academic purposes. Using interactive features strategically to practice communication was also recommended. Moreover, English educators/teachers are advised to design learning activities that explicitly integrate social media to develop 4C skills, such as critical analysis of social media content assignments or collaborative projects. Integrating digital and media literacy instruction into the curriculum is urgently needed to equip students with the tools to critically and responsibly navigate the digital space. Finally, future studies are encouraged to focus on areas such as: conducting similar studies with larger, more diverse samples to increase the generalizability of findings; using a mixed-methods approach for a more comprehensive understanding; examining the effectiveness of social media-based learning models specifically designed to develop 4C skills; and conducting an in-depth analysis on specific platforms (e.g., TikTok for collaboration, YouTube for creativity).

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