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RESEARCH ARTICLE

Interpersonal Communication in Digital Simulations: Dynamics of Self-Disclosure, Trust, and Persuasion

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Abstract: This study explores interpersonal communication processes in digital simulation contexts, with particular emphasis on self-disclosure, trust, and persuasion dynamics. Using a descriptive qualitative approach with reflexive thematic analysis, this research examines participants' experiences during simulation-based project activities involving lobbying, presentations, and negotiations. Data were collected through participant observation, documentation of communication performances, and in-depth interviews. The findings reveal that digital simulations foster the development of interpersonal communication through improved message articulation, structured argumentation, and adaptive persuasion strategies in complex interactional situations. The collaborative process also encourages self-disclosure, supports emotional regulation, and contributes to the formation of interpersonal trust among participants. In addition, significant transformations are observed in both verbal and nonverbal communication, reflecting the emergence of communicative competence and evolving interactional identities. These findings suggest that digital simulations function as dynamic spaces for practicing and understanding interpersonal communication in contemporary digital environments.

Keywords: Digital Simulation; Interpersonal Communication; Trust; Self-Disclosure; Persuasion

1. Introduction

The rapid development of digital technology has transformed the ways individuals interact, communicate, and construct meaning within various social contexts. Digital environments increasingly serve as spaces where interpersonal communication unfolds dynamically, requiring individuals to adapt their communication strategies to complex and mediated interaction settings (Meier, 2021; Pinheiro, 2024). One emerging context that reflects these dynamics is digital simulation, which provides structured yet flexible environments that resemble real-life communication situations such as lobbying, presentations, and negotiations. Within these contexts, individuals engage in interactive processes that involve message exchange, interpretation, and adaptation in response to others.

Interpersonal communication in digital simulation contexts extends beyond the delivery of messages, encompassing the ability to manage impressions, regulate emotions, and respond to verbal and nonverbal cues. These interactional processes are closely related to key interpersonal dimensions such as self-disclosure, trust formation, and persuasive communication. Through repeated interaction in simulated environments, individuals



develop strategies to articulate ideas clearly, negotiate meaning, and influence others while maintaining relational balance. Such experiences highlight that interpersonal communication competence is not only technical but also relational and situational.

Previous studies have shown that simulation-based interactions provide opportunities for individuals to engage in realistic communication practices that mirror professional and social environments (Kovalova, 2025; Palmquist et al., 2024). Digital collaborative simulations, in particular, have been found to enhance communication effectiveness by encouraging participants to actively negotiate ideas, respond to feedback, and adapt their communication styles (Alrashidi et al., 2023; Yoel et al., 2023; Sezgin & Bektas, 2023). These findings suggest that simulation environments function as interactional spaces where communication is continuously constructed and reconstructed through social engagement.

In addition to observable communication performance, interpersonal interaction is also shaped by psychological and relational factors. Self-disclosure plays a crucial role in fostering openness and authenticity in communication, allowing individuals to share perspectives, experiences, and concerns within interactional settings (Dike et al., 2023; Kim, 2023; Wiewiora & Kowalkiewicz, 2019). This openness contributes to the development of interpersonal trust, which is essential for sustaining effective and meaningful communication. Furthermore, persuasive communication emerges as a key process in influencing others, particularly in contexts that require negotiation, agreement-building, and decision-making. These elements are interconnected and contribute to the formation of communicative identity in digital interaction environments (Ashuri & Halperin, 2025; Dindia & Kim, 2011; Manago & Melton, 2020).

Despite the growing body of research on digital communication and simulation-based interaction, studies that specifically examine how interpersonal communication processes—particularly self-disclosure, trust, and persuasion—emerge and develop within digital simulation contexts remain limited. Existing research tends to emphasize performance outcomes or skill development, rather than exploring the interactional dynamics and meaning-making processes that occur during communication.

Based on this gap, this study explores interpersonal communication in digital simulation contexts, focusing on how self-disclosure, trust, and persuasion dynamics are constructed through interactional experiences. It examines participants' engagement in simulated communication scenarios to understand how these processes shape communication practices, relational dynamics, and the development of communicative identity in contemporary digital environments.

This study contributes to the existing literature by extending the discussion of digital simulation into negotiation-related communication contexts, such as lobbying, presentations, and negotiations, where interpersonal dynamics and strategic interaction are central. It offers a nuanced understanding of how simulation-based interactions foster interpersonal communication competence through processes of self-disclosure, emotional regulation, and adaptive responses to verbal and nonverbal cues, emphasizing that competence is constructed through iterative and context-sensitive interactional experiences. Furthermore, this study positions digital simulation as a communication laboratory in which individuals engage in performative interactions to negotiate meaning and develop their communicative identity. By integrating an interpersonal communication perspective with simulation-based interaction, this study highlights that digital simulation environments function not only as spaces for practicing communication skills but also as arenas for the co-construction of relationships, meaning, and identity in contemporary digital contexts.

2. Literature Review

Digital simulation-based communication learning is not only about using technology as a learning medium but also involves complex social interaction dynamics (Dittrich et al., 2022; Zhang & Ma, 2023). Therefore, this study draws on several theoretical perspectives to



examine how students' learning experiences shape their interpersonal communication competencies and broader social skills. The theoretical framework includes interpersonal communication theory, symbolic interactionism, and self-disclosure, and integrates these with digital simulation approaches, Project-Based Learning, and life skills development.

Interpersonal communication theory serves as the primary foundation for understanding student interaction processes during simulation activities. Interpersonal communication is viewed as a process of exchanging messages involving verbal and nonverbal dimensions to build shared meaning, social relations, and interaction effectiveness (Kushariyadi et al., 2025; Lehmann-Willenbrock, 2025; Troussas et al., 2025). In simulation-based activities, participants not only practice delivering persuasive messages but also learn to interpret others' responses, regulate emotions, and adapt communication strategies to the situational context. These interactional experiences demonstrate that interpersonal communication competence develops through repeated interaction rather than solely through theoretical understanding.

To deepen the understanding of how communicative identity is formed, this study also adopts a symbolic interactionist perspective. This approach explains that social meaning is constructed through the interpretation of symbols in everyday interactions, enabling individuals to interpret the social roles, norms, and expectations they encounter (Gurung et al., 2025; Simmons & Durkin, 2023). In simulated interaction settings, participants may assume professional roles such as negotiator, presenter, or mediator, turning the simulation into a space for social experimentation. Through this process, communication effectiveness is shaped not only by message content but also by how messages are delivered and interpreted within specific social contexts.

The concept of self-disclosure further enriches the analytical framework because it often emerges during intensive collaborative interaction. Previous studies show that self-disclosure can strengthen interpersonal relationships and increase communication confidence (Li et al., 2022; Rohimah et al., 2026). In simulation-based collaborative settings, participants frequently share experiences, reflections, and perspectives related to their roles, making interactions more authentic (Datu et al., 2025; Sathyapal & Deb, 2026). Such openness reflects a balanced interpersonal communication process that combines self-expression with responsiveness to others, thereby fostering empathy and social understanding.

In addition to these theoretical perspectives, this study also considers the role of digital simulation environments in facilitating communication practice as dynamic spaces for interactional experimentation and meaning-making. Digital simulation represents social situations through technological media, enabling participants to engage in communication patterns that closely resemble professional realities, particularly in contexts requiring persuasion, negotiation, and relational management. Within these environments, participants are not only able to experiment with various communication strategies but also to critically evaluate their performance through reflective processes that enhance their awareness of both verbal and nonverbal elements, including voice intonation, gestures, facial expressions, and timing in interaction (Ibrahim et al., 2022; Ismail et al., 2024; Rodero, 2022).

Furthermore, the iterative nature of simulation—characterized by repeated practice, feedback, and adaptation—supports the development of more refined persuasive communication, sharper interpretation of interactional cues, and greater sensitivity to audience responses. These processes contribute to the gradual strengthening of communicative identity, as individuals learn to align their communication styles with situational demands and social expectations in increasingly complex digital contexts (Owens & Hite, 2022; Mugabekazi et al., 2025).

3. Research Methods and Materials

This study was conducted in the Communication Studies Program, Faculty of Social and Political Sciences, University of East Indonesia, during the 2024/2025 academic year. It employed a qualitative case study design to examine participants' experiences in developing



interpersonal communication competence through digital simulation projects in the context of lobbying, presentation, and negotiation activities. This design was chosen to capture interaction processes, the meanings constructed by participants, and the social dynamics emerging within a specific communication setting.

The participants were sixth-semester students involved in the simulation activities. Of the 18 project groups formed, 12 were selected using purposive sampling based on the diversity of simulation themes, the clarity of the concepts developed, and the level of active participation among group members. In addition, twelve participants were selected as key informants for in-depth interviews to provide reflective insights into their interaction experiences.

The data collection instruments consisted of an observation guide, a documentation checklist, and a semi-structured interview guide. The observation guide focused on verbal and nonverbal communication, interaction patterns, role enactment, and collaboration during simulation activities. The documentation checklist was used to organize simulation videos, project concept documents, and participants' reflective notes. Meanwhile, the interview guide explored perceptions of communication development, self-confidence, collaboration, and self-disclosure, as well as experiences in performing professional roles within simulated communication contexts.

Data collection was carried out through three main techniques. First, participant observation was conducted during simulation practices and presentations. Second, documentation included video recordings of simulations, project documents, and reflective notes produced during the activities. Third, in-depth semi-structured interviews allowed participants to describe their experiences, challenges, and perceptions. To ensure trustworthiness, data were triangulated across observation, documentation, and interviews. The researcher also compared field notes, interview data, and recorded simulations to maintain consistency, while adopting a reflexive stance to critically examine the dual role as lecturer and researcher and minimize interpretive bias.

Data were analyzed using the reflexive thematic analysis approach developed by Braun and Clarke (Braun et al., 2022; Byrne, 2022). The analysis involved several stages, including data familiarization through repeated reading, initial coding, identification of potential themes, review of themes, naming and defining themes, and the development of thematic narratives. The analysis was conducted manually using a reflexive approach, enabling a deep contextual understanding of interaction dynamics while maintaining analytical rigor.

4. Results and Discussion

This study was conducted in the Communication Studies Program, Faculty of Social and Political Sciences, University of East Indonesia, during the 2024/2025 academic year. It employed a qualitative case study design to examine participants' experiences in developing interpersonal communication competence through digital simulation projects in the context of lobbying, presentation, and negotiation activities. This design was chosen to capture interaction processes, the meanings constructed by participants, and the social dynamics emerging within a specific communication setting.

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Data collection was carried out through three main techniques. Participant observation was conducted during simulation practices and presentations, enabling the researcher to capture real-time interaction processes. Documentation included video recordings of simulations, project documents, and reflective notes produced during the activities. In addition, in-depth semi-structured interviews allowed participants to describe their experiences, challenges, and perceptions of digital simulation-based communication practices. To ensure trustworthiness, data were triangulated across observation, documentation, and interviews, supported by continuous comparison between field notes, interview data, and recorded simulations, while maintaining a reflexive stance to critically examine the researcher's dual role and minimize interpretive bias.

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The repeated reflection process embedded in the simulation activities enabled students to critically evaluate their communication performance and progressively develop an awareness of the importance of nonverbal elements in meaning construction. Through iterative practice and reflection, participants became more conscious of how facial expressions, eye contact, gestures, and tone of voice influence the interpretation of messages. This awareness did not emerge instantly but was shaped through continuous exposure to simulated interaction scenarios that required students to actively perform and reassess their communicative behavior.

Observational data further revealed notable improvements in students' active listening skills. These improvements were reflected in faster and more contextually appropriate responses, consistent use of nodding as a signal of attentiveness, and a more structured and coherent approach when answering questions. Such behavioral indicators demonstrate that students were not merely engaging in surface-level interaction but were developing deeper interactional sensitivity, including the ability to interpret conversational cues, manage turn-taking, and respond in ways that sustain meaningful communication.

These findings reinforce the argument that digital simulation can serve as an effective medium for shaping communicative identity through sustained performative experiences (Jowsey et al., 2020; Onu et al., 2024). Within the simulation environment, students are positioned not only as message senders but also as social actors who continuously negotiate meaning, roles, and expectations. The opportunity to engage in repeated cycles of action and reflection allows participants to refine their communication strategies, internalize professional norms, and develop a more adaptive and context-sensitive communicative identity.

Overall, the analysis of verbal and nonverbal communication patterns indicates a significant enhancement in students' professionalism across diverse interaction settings, including both face-to-face and digitally mediated contexts. This suggests that digital simulation is not merely a technological tool but a dynamic interactional space that supports the development of communication skills aligned with the demands of the digital era. In this context, communication effectiveness is shaped not only by the clarity of message content but also by the appropriateness of delivery, the ability to interpret responses, and the capacity to adapt to evolving social and interactional contexts.

Despite these positive outcomes, several limitations should be acknowledged. The study was conducted within a single study program and involved a relatively small number of participants, which may limit the transferability of the findings to broader educational or professional contexts. Additionally, the focus on a single course may not fully capture the diversity of communication training practices across disciplines. The researcher's dual role as lecturer and researcher also presents potential challenges related to subjectivity, although efforts were made to address this through reflexive analysis and data triangulation. Future research is therefore recommended to involve more diverse disciplinary settings, larger participant groups, and the integration of mixed-methods approaches to enhance the robustness, generalizability, and practical implications of the findings.

5. Conclusion

The rapid development of digital technology has transformed the ways individuals interact, communicate, and construct meaning within various social contexts. Digital environments increasingly serve as spaces where interpersonal communication unfolds dynamically, requiring individuals to adapt their communication strategies to complex and mediated interaction settings (Meier, 2021; Pinheiro, 2024). One emerging context that reflects these dynamics is digital simulation, which provides structured yet flexible environments that resemble real-life communication situations such as lobbying, presentations, and negotiations. Within these contexts, individuals engage in interactive processes that involve message exchange, interpretation, and adaptation in response to others.

Interpersonal communication in digital simulation contexts extends beyond the delivery of messages, encompassing the ability to manage impressions, regulate emotions, and respond to verbal and nonverbal cues. These interactional processes are closely related to key interpersonal dimensions such as self-disclosure, trust formation, and persuasive communication. Through repeated interaction in simulated environments, individuals develop strategies to articulate ideas clearly, negotiate meaning, and influence others while maintaining relational balance. Such experiences highlight that interpersonal communication competence is not only technical but also relational and situational.

Previous studies have shown that simulation-based interactions provide opportunities for individuals to engage in realistic communication practices that mirror professional and social environments (Kovalova, 2025; Palmquist et al., 2024). Digital collaborative simulations, in particular, have been found to enhance communication effectiveness by encouraging participants to actively negotiate ideas, respond to feedback, and adapt their communication styles (Alrashidi et al., 2023; Yoel et al., 2023; Sezgin & Bektas, 2023). These findings suggest that simulation environments function as interactional spaces where communication is continuously constructed and reconstructed through social engagement.

In addition to observable communication performance, interpersonal interaction is also shaped by psychological and relational factors. Self-disclosure plays a crucial role in fostering openness and authenticity in communication, allowing individuals to share perspectives, experiences, and concerns within interactional settings (Dike et al., 2023; Kim, 2023; Wiewiora & Kowalkiewicz, 2019). This openness contributes to the development of interpersonal trust, which is essential for sustaining effective and meaningful communication. Furthermore, persuasive communication emerges as a key process in influencing others, particularly in contexts that require negotiation, agreement-building, and decision-making. These elements are interconnected and contribute to the formation of communicative identity in digital interaction environments (Ashuri & Halperin, 2025; Dindia & Kim, 2011; Manago & Melton, 2020).

In the context of digital interaction, communication is not merely an exchange of information but also a process of negotiating meaning and relational positioning. Individuals continuously interpret symbols, adjust their communicative behavior, and respond to feedback within mediated environments. This process becomes more complex in simulation contexts, where

interaction is structured yet still requires participants to engage authentically. As a result, communication competence in such settings is shaped not only by cognitive understanding but also by the ability to navigate relational cues, manage uncertainty, and sustain interactional coherence.

Moreover, digital simulation environments provide a unique space for observing how interpersonal communication processes unfold in controlled yet dynamic conditions. These environments enable the examination of how self-disclosure, trust, and persuasion are not static variables but evolving processes that emerge through repeated interaction. By focusing on these dynamics, digital simulation can be understood as an interactional arena where communicative identity is continuously constructed, negotiated, and transformed in response to situational demands and social expectations.

Despite the growing body of research on digital communication and simulation-based interaction, studies that specifically examine how interpersonal communication processes—particularly self-disclosure, trust, and persuasion—emerge and develop within digital simulation contexts remain limited. Existing research tends to emphasize performance outcomes or skill development, rather than exploring the interactional dynamics and meaning-making processes that occur during communication. Based on this gap, this study explores interpersonal communication in digital simulation contexts, focusing on how self-disclosure, trust, and persuasion dynamics are constructed through interactional experiences. It examines participants' engagement in simulated communication scenarios to understand how these processes shape communication practices, relational dynamics, and the development of communicative identity in contemporary digital environments. This study contributes by extending the literature on digital simulation through its application in negotiation-related communication contexts, explaining how simulation-based interactions foster interpersonal competence through self-disclosure, emotional regulation, and adaptation to verbal and nonverbal demands, and highlighting the role of digital simulation as a communication laboratory for strengthening communicative identity.

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