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PLAYING SERIOUSLY: CLINICAL SIMULATIONS AS A GAME-BASED PATH TO INTERPERSONAL COMMUNICATION SKILLS IN LIFELONG LEARNING

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Abstract

Interpersonal communication is widely recognised as a critical 21st-century skill and a cornerstone of lifelong learning. Yet developing such skills remains challenging, as traditional, theory-based approaches often fail to provide adults with the experiential practice needed for meaningful change. This theoretical study offers an integrative overview of clinical simulations with professional actors and highlights the ways they draw on characteristics commonly associated with serious games in adult learning, demonstrating their potential to bridge the persistent gap between abstract knowledge and real-world interpersonal performance.

Originally established in medical education and subsequently adopted in teacher training and other professional domains, clinical simulations immerse participants in realistic, actor-facilitated scenarios where they can experiment, make mistakes, and receive immediate,

multidimensional feedback without real-life consequences. A case example from faculty development workshops in higher education illustrates how this method fosters awareness of communication styles, empathy for others, and confidence in managing complex interpersonal situations.

Although the case presented is situated in academia, the method's potential extends well beyond this context. Clinical simulations can be adapted for vocational training, leadership development, and organisational learning, offering a scalable approach to cultivating interpersonal competencies across diverse sectors. The paper positions clinical simulation as a valuable contribution to lifelong learning and calls for further exploration of its applications in global professional contexts.

Keywords: interpersonal communication skills, clinical simulations, lifelong learning, serious games, 21st century skills, experiential learning

KDYŽ HRA SLOUŽÍ VÁŽNÝM CÍLŮM: KLINICKÉ SIMULACE JAKO CESTA VYUŽÍVAJÍCÍ HRANÍ ROLÍ K ROZVOJI INTERPERSONÁLNÍCH KOMUNIKAČNÍCH DOVEDNOSTÍ V CELOŽIVOTNÍM UČENÍ

Abstrakt

Mezilidská komunikace je široce uznávána jako klíčová dovednost pro 21. století a základní kámen celoživotního učení. Rozvoj těchto dovedností však zůstává náročný, protože tradiční, teoreticky založené přístupy často nedokážou dospělým poskytnout zkušenostní praxi potřebnou pro dosažení smysluplné změny. Tato teoretická studie nabízí integrativní přehled klinických simulací s profesionálními herci, a zdůrazňuje způsoby, jakými čerpají z charakteristik běžně spojovaných s konceptem serious games v učení dospělých, a demonstruje jejich

potenciál překlenout přetrvávající propast mezi abstraktními znalostmi a reálným mezilidským chováním.

Klinické simulace, původně vytvořené pro lékařském vzdělávání a následně převzaté v přípravě učitelů a dalších profesních oblastech, vtahují účastníky do realistických, herci facilitovaných scénářů, v nichž mohou experimentovat, dělat chyby a dostávat okamžitou, mnohorozměrnou zpětnou vazbu bez reálných následků. Případová studie z workshopů profesního rozvoje vysokoškolských pedagogů ilustruje, jak tato metoda podporuje uvědomění si komunikačních stylů, empatii vůči druhým a sebedůvěru při zvládání složitých mezilidských situací.

Ačkoli se prezentovaný případ odehrává v akademickém prostředí, potenciál této metody sahá daleko za jeho hranice. Klinické simulace lze přizpůsobit pro odborný výcvik, rozvoj leadershipu i organizační učení, a nabídnout tak škálovatelný přístup k rozvoji interpersonálních kompetencí napříč různými odvětvími. Studie představuje klinickou simulaci jako cenný příspěvek k celoživotnímu učení a vyzývá k dalšímu zkoumání jejích aplikací v globálním profesním kontextu.

Klíčová slova: interpersonální komunikační dovednosti, klinické simulace, celoživotní učení, serious games, dovednosti pro 21. století, zkušenostní učení

1. INTRODUCTION

Interpersonal communication has become a cornerstone of 21st-century competencies, recognised globally as essential for personal, professional, and civic success. In today's rapidly evolving world of work, technical skills often lose relevance or require constant updating, while the ability to communicate clearly, empathically, and collaboratively remains consistently vital across occupations and contexts (OECD, 2018; World Economic Forum, 2020). As organisations grow more global and diverse, effective communication enables individuals to bridge cultural differences, resolve conflicts, and build trust in teams and communities. Moreover, interpersonal communication underpins lifelong learning itself: adults who can listen actively, give and receive feedback, and engage in constructive dialogue are better equipped to learn continuously and adapt to new challenges.

These ideas align with prominent learning frameworks such as the "4Cs" (Critical thinking, Creativity, Communication, Collaboration), which highlight communication as one of the most critical competencies for thriving in the 21st century. Research on experiential learning further reinforces this view, showing that adults learn most effectively when they can engage directly, reflect on experience, and apply insights to real-world situations (Kolb, 1984; Yardley *et al.*, 2012).

Despite its recognised importance, interpersonal communication is notoriously difficult to develop through traditional, theory-based approaches. Research on experiential and professional learning shows that lectures, readings, or standard workshops rarely capture the emotional complexity and unpredictability of real interpersonal interactions, making it difficult for adults to translate abstract principles into practice (Kolb, 1984; Yardley *et al.*, 2012). Studies of simulation-based learning similarly emphasise that meaningful change in communication skills requires authentic practice, opportunities to experiment, and structured reflection, rather than passive exposure to theoretical knowledge (Fanning & Gaba, 2007; Issenberg *et al.*, 2005; Rudolph *et al.*, 2008). Without such opportunities for experiential engagement and immediate feedback, learning tends to remain superficial and does not lead to behavioural change.

Clinical simulations with professional actors offer a powerful response to this challenge and function as a distinctive form of serious game within adult education. Unlike traditional role-play exercises, clinical simulations are carefully designed, scripted, and facilitated to mirror real interpersonal scenarios while preserving a safe, supportive learning environment. Participants can step into realistic situations - for example, addressing conflict, giving feedback, or navigating emotionally sensitive interactions - and experiment with different approaches without real-world consequences. The involvement of professional actors ensures authenticity in the interaction and enables nuanced, immediate feedback from multiple perspectives. In this way, clinical simulations combine the immersive qualities of experiential and game-informed learning with core principles of adult education, making them especially well-suited for developing interpersonal communication skills in lifelong learning contexts.

2. THEORETICAL BACKGROUND

Simulation-based learning is broadly defined as an experiential approach in which learners engage with representations of real-world situations in controlled, supportive environments (Dieckmann, 2009; Gaba, 2004; Lateef, 2010). Across diverse fields, simulations have been shown to promote experiential engagement, structured decision making, and safe practice with complex tasks (Issenberg *et al.*, 2005; Rudolph *et al.*, 2006).

2.1 Simulation-Based Learning and Serious Games

In educational research, simulations are frequently examined alongside serious games, since both use structured roles, rules, scenario constraints, and feedback mechanisms designed for learning rather than entertainment (Aldrich, 2009; Crookall, 2010; Laamarti *et al.*, 2014; Michael & Chen, 2006). Serious games contribute to motivation, active engagement, and problem solving (Connolly *et al.*, 2012; Mayer, 2016), and meta-analyses show sustained cognitive and motivational benefits in adult learning and vocational contexts (Sitzmann, 2011; Wouters *et al.*, 2013).

Simulation-based learning, however, encompasses a wider range of methodologies. Many simulations - particularly technological ones - focus on procedural or technical skills and may not initially involve narrative or interpersonal complexity (Kneebone, 2003; McGaghie *et al.*, 2010). For example, flight simulators or surgical simulators often begin with basic skill acquisition before progressing to scenario-based training.

Across this spectrum, scenario-based simulations - including computer-based, tabletop, or scripted paper simulations - have been found especially effective for supporting decision making, communication, and situational judgment in adult learners (Bowers *et al.*, 1997; Salas *et al.*, 2009). These dimensions form the conceptual bridge to actor-based and clinical simulations.

Clinical simulations are not classified as serious games, yet they incorporate game-like elements that contribute to engagement and learning.

2.2 Actor-Based Simulations and the Concept of Clinical Simulations

A specific subset of simulation-based learning is actor-based simulation, in which trained professional actors portray human roles such as patients, clients, colleagues, or students. Research consistently shows that actor consistency, emotional authenticity, and the ability to modulate difficulty make such simulations uniquely powerful for interpersonal skills development (Cleland *et al.*, 2009; Nestel & Bearman, 2015; Paige & Morin, 2013).

The term *clinical simulations* is commonly used interchangeably with actor-based simulations in several fields, originating in medical education with the introduction of standardised patients (Barrows, 1993; Wallace, 1997). Clinical simulations have become a cornerstone of communication training in healthcare, supporting skills such as empathy, delivering difficult news, and managing conflict (Kurtz *et al.*, 2005; Yedidia *et al.*, 2003).

In Israel, clinical simulations were later adapted and expanded into teacher education, where they were developed into a structured pedagogical model for preparing preservice and in-service teachers for challenging interpersonal interactions. Recent studies demonstrate the value of simulation-based learning for developing teachers' reflective judgment, emotional regulation, and relational competence (Levin & Frei-Landau, 2023; Levin & Segev, 2023). These works show how clinical simulations help teacher-learners navigate scenarios such as parent–teacher meetings, classroom conflict, and emotionally charged conversations. Today, simulation centres operate in most Israeli teacher-education institutions.

Although the use of clinical simulations has begun to expand into fields such as social work (Bogo *et al.*, 2014), allied health (Alfes, 2015), customer-facing professions, and managerial training (Lane & Rollnick, 2007), their adoption remains uneven. Even in Israel, where the method is relatively well established, implementation still occurs primarily in medical and teacher education, while other sectors make limited use of the approach. This highlights the relevance of introducing clinical simulations to broader lifelong-learning contexts and underscores the need for continued scholarly attention and practical exploration.

2.3 Clinical Simulations and Adult Learning Principles

Clinical simulations align closely with foundational principles of adult learning. Knowles (1984) emphasised adults' need for self-direction,

relevance, and connection to prior experience. McGrath (2009) further argued that adults engage deeply when they understand the purpose of learning and perceive immediate applicability. More recent work supports these claims: effective adult learning environments require authenticity, autonomy, and structured reflection (Merriam & Bierema, 2014; Taylor & Laros, 2014).

Clinical simulations operationalise these principles by combining:

- Authentic professional scenarios (Kolb, 1984; Salas *et al.*, 2009)
- Hands-on, real-time interaction with unpredictable human responses (Nestel & Bearman, 2015)
- Immediate feedback from actors representing actual stakeholders (Cleland *et al.*, 2009)
- Structured debriefing, which research identifies as the most important factor for learning transfer (Fanning & Gaba, 2007; Rudolph *et al.*, 2008)

Research in adult and vocational education further shows that experiential and game-informed methods significantly outperform traditional lecture-based formats in engagement and skill development (Sitzmann, 2011; Wouters *et al.*, 2013).

Clinical simulations, therefore, offer a unique contribution to lifelong learning by cultivating interpersonal communication, emotional regulation, and relational competence - skills increasingly recognised as essential for adults across sectors and career stages.

3. CLINICAL SIMULATION AS A METHOD

Building on the theoretical foundations outlined above, clinical simulations offer a structured, experiential approach to interpersonal communication training. They are realistic, actor-based simulations of challenging workplace situations in which learners interact with trained professional actors portraying patients, clients, colleagues, students, or other stakeholders. Rooted in the standardised patient tradition of medical education (Barrows, 1993; Cleland *et al.*, 2009) and later adapted to teacher education and additional professional fields (Nestel & Bearman, 2015), this method emphasises authenticity, emotional realism, and reflective learning.

Clinical simulation workshops typically follow a structured pedagogical sequence that combines theoretical input, experiential practice, and guided

reflection. Sessions often begin with an introduction to relevant communication concepts or frameworks, ensuring a shared foundation before participants enter the simulation phase.

Learners then engage in scenario-based interactions that mirror real professional challenges. Examples include a manager addressing conflict within a team, a healthcare provider delivering difficult news, or a customer-service employee responding to a frustrated client. The use of trained actors ensures high interactional fidelity, meaning that emotional and relational dynamics closely resemble real-world encounters (Dieckmann, 2009; Lateef, 2010). This creates a safe environment in which mistakes carry no real-life consequences and can be reframed as opportunities for growth (Fanning & Gaba, 2007; Rudolph *et al.*, 2006).

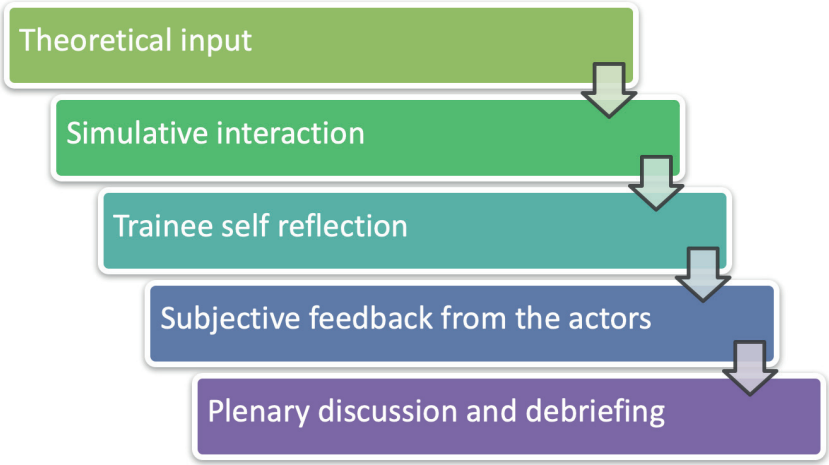
Immediately following the simulation, the facilitator invites the trainee to articulate how the interaction felt from their perspective, initiating the reflective process. The actors then provide subjective, character-based feedback that reveals how the trainee's communication was experienced from "the other side". Research shows that this form of feedback is uniquely powerful in helping learners understand the emotional and interpersonal impact of their choices (Lane & Rollnick, 2007; O'Shea *et al.*, 2019).

The workshop concludes with a plenary debriefing in which the trainee and observing participants share reflections, raise questions, and connect the simulated encounter to broader professional experiences. Evidence across simulation-based education highlights structured debriefing as the primary mechanism through which learning is consolidated and transferred into practice (Fanning & Gaba, 2007; Rudolph *et al.*, 2008).

Together, these stages form an iterative cycle of input, practice, feedback, and reflection that deepens awareness of interpersonal communication and supports the development of transferable skills. This pedagogical structure is visually summarised in Figure 1.

Clinical simulations also incorporate several game-based characteristics:

- **Roles:** Each simulation includes clearly defined roles. Actors portray characters with scripted backgrounds and motivations, while trainees typically play themselves in a professional capacity.
- **Reality imitation:** Scenarios are designed to reflect realistic challenges drawn from professional practice. Physical or virtual settings are arranged



1 Figure: *A visual representation of the stages of clinical simulation workshops.*

to simulate the real environment in which such interactions would normally occur.

- **Safe space for making mistakes:** The simulated setting allows trainees to experiment with different approaches without risking harm. Errors are reframed as learning opportunities, and the reflective process encourages learners to examine what happened and why.

Beyond their structure, clinical simulations offer several pedagogical advantages: they create vivid experiential learning moments (Kolb, 1984), evoke emotional engagement that enhances memory and insight (DeMaria *et al.*, 2010), support meaningful reflection (Rudolph *et al.*, 2008), and can be implemented both face-to-face and synchronously online, increasing accessibility and scalability (Levin & Segev, 2023).

By combining experiential practice with emotional realism and structured reflection, clinical simulations create learning experiences that are both memorable and transformative. These qualities make them especially valuable in lifelong learning contexts, where sustained impact and transfer into real-world practice are essential.

4. CASE EXAMPLE: IMPLEMENTATION IN ACADEMIC FACULTY DEVELOPMENT

To illustrate how clinical simulations can be integrated into adult learning environments, this section presents a descriptive case example drawn from the author's professional practice. The case does not aim to provide empirical evidence, but rather to demonstrate how the method was applied in an institutional context and what types of learning processes it supported.

4.1 Design and Development of the Workshops

The design of each clinical simulation workshop was carried out in collaboration with the head of the relevant academic or administrative unit. Together, the unit leader and the simulation team identified the target audience, the challenges staff members commonly faced, the learning needs, and the desired learning outcomes. In most cases, the unit leader also appointed a subject matter expert (SME) - typically a senior staff member - who worked with the simulation team to develop two scenarios for each workshop.

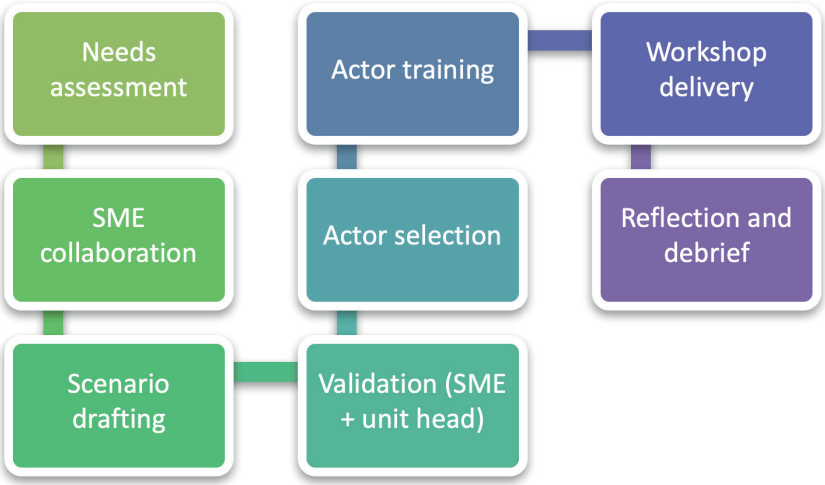
To ensure relevance and authenticity, the scenarios were based on realistic incidents previously encountered by staff in that unit. The scenarios were written to reflect genuine professional dilemmas and were constructed dynamically to accommodate a range of possible trainee responses during the simulation. Once a draft scenario was completed, it was reviewed by both the SME and the unit leader for validation and revised as needed.

After approval, the scenarios were shared with the external acting company. Together with the company, the simulation team selected actors whose characteristics fit the roles. The actors received the scenarios in advance and participated in a dedicated rehearsal session, ensuring a clear understanding of their characters, the purpose of the scenario, and the trainee profile. Only after these preparatory stages were completed was the workshop delivered.

Figure 2 summarises the design and preparation process for the clinical simulation workshops.

4.2 Implementation and Participation

Between 2017 and 2025, the clinical simulation method was implemented at the Jerusalem Multidisciplinary College as part of its faculty professional



2 Figure: *Summary of the design and preparation process for the clinical simulation workshops.*

development program. During this period, 31 clinical simulation workshops were delivered to new and experienced lecturers, with a total of 589 faculty members participating. This represents approximately 40 per cent of the college's academic staff, reflecting substantial exposure to the method within a mid-sized institution. In 2024–2025, the method was also extended to additional employee groups, including campus security personnel and a team of speech-language pathologists at the college's aphasia centre, involving 30 participants.

4.3 Workshop Objectives

The workshops were designed to strengthen participants' interpersonal communication skills in complex or sensitive situations. The objectives included maintaining assertiveness while upholding professional standards, motivating and engaging others, sustaining respectful and inclusive dialogue, creating psychologically safe learning or working environments, responding constructively to frustration or resistance, and addressing sensitive issues such as bias or discrimination. These objectives mirror many of the interpersonal competencies identified in the literature as essential for effective professional practice across domains (Kurtz *et al.*, 2005; Nestel & Bearman, 2015).

4.4 Sources of Evidence and Observed Outcomes

Although no formal empirical data were collected, insights from this case example are based on longitudinal practitioner observations, attendance records, informal feedback from participants (oral, written, and digital correspondence), and follow-up communications initiated by participants in the months following the workshops. Across workshops, several recurring patterns emerged.

Participants frequently reported that the simulations prompted immediate reflection on their assumptions, communication habits, and emotional responses. Some described delayed insights that surfaced only after returning to their daily practice. For example, one participant initially questioned the value of attending a simulation workshop but later expressed that the experience had been unexpectedly meaningful. Another participant wrote several months after the workshop that a real classroom incident closely resembled the scenario practised in the simulation, and that the experience had helped her respond more effectively.

Occasionally, the method also influenced institutional decision-making. In one meeting of department heads, when discussing a complex interpersonal challenge, a participant suggested staging the situation as a clinical simulation in order to generate new perspectives and support collaborative problem-solving. Such observations align with established findings that experiential and scenario-based learning can promote both awareness and the transfer of communication strategies into real-world contexts (Fanning & Gaba, 2007; Rudolph *et al.*, 2007).

4.5 Summary of the Case

This case example illustrates how clinical simulations can be incorporated into faculty development and workplace learning, and how they may support reflective practice and the application of interpersonal communication skills, even in the absence of formal empirical evaluation. The observations emerging from multiple workshops over several years provide practice-based insights into the potential of clinical simulations as a tool for adult and professional learning.

This case example is descriptive in nature and does not include systematic data collection or formal analysis. The insights presented are based on

practitioner observations, informal participant feedback, and longitudinal experience across multiple workshops. As such, the observations should not be interpreted as generalisable findings but rather as practice-based indications of the method's potential. Future empirical studies are needed to examine learning outcomes, transfer of interpersonal communication skills, and contextual factors that influence the effectiveness of clinical simulations in different lifelong learning environments.

5. DISCUSSION: POTENTIAL FOR LIFELONG LEARNING

Clinical simulations can be integrated into a wide range of professional and educational contexts, from classrooms and offices to hospitals, customer service centres, and clinics. Research on workplace and vocational learning emphasises that adults benefit most from learning experiences that are authentic, problem-centred, and closely connected to real-world practice (Billett, 2014; Eraut, 2004). Clinical simulations align with these principles by recreating realistic interpersonal challenges and enabling learners to experiment with different communicative strategies in a safe, supportive setting.

Beyond their general value for experiential and workplace learning, clinical simulations specifically support the development of interpersonal communication by requiring learners to navigate real-time relational cues, practice perspective-taking, manage emotional dynamics, and refine their verbal and non-verbal communication strategies. These processes directly address core components of interpersonal competency that are difficult to develop through traditional instruction.

From a lifelong learning perspective, clinical simulations reflect core mechanisms that underpin how adults learn through experience. Fenwick (2003) highlights that experiential learning in adulthood involves active engagement, emotional investment, negotiation of meaning, and the reconstruction of prior knowledge through interaction. Clinical simulations foster these processes by placing participants in dynamic interpersonal situations that require immediate sense-making, interpretation of others' responses, and reflection on their own choices. Similarly, theories of workplace learning emphasise guided participation in authentic tasks as a central route to skill development (Billett, 2001, 2014). Actor-based simulations offer structured participation in lifelike professional encounters that mirror these everyday

demands, making them a strong fit for adult learning environments that value experience, reflection, and adaptive practice.

Beyond the field of education, clinical simulations show considerable potential in lifelong learning initiatives across sectors. In leadership development, experiential formats such as simulation-based practice have been shown to support managers in balancing empathy and assertiveness while maintaining professional standards. Although DeMaria *et al.* (2010) examined the impact of emotional stressors in medical simulation environments, their findings illustrate how emotional engagement can deepen learning and improve individuals' ability to respond under pressure - an aspect that is also relevant for leaders navigating complex interpersonal situations.

In vocational and service-oriented professions, simulations help develop communication, emotional regulation, and client interaction skills that are essential for effective performance (Hurrell, 2016; Robles, 2012). These interpersonal capacities are increasingly recognised as central to high-quality service across domains such as customer support, banking, social work, and healthcare (Billett, 2001; Illeris, 2018).

Clinical simulations also offer flexibility that aligns well with contemporary patterns of lifelong learning. Scenarios can be adapted to diverse professional contexts, and actor-based simulations can be delivered face-to-face or in synchronous online formats, making the method accessible to learners regardless of location. This adaptability corresponds with views of adult learning as a continuous and evolving process in which individuals refine their skills through iterative cycles of experience, feedback, and reflection (Garraway, 2010; Illeris, 2018).

By providing structured opportunities for rehearsal, immediate feedback, and reflective dialogue, clinical simulations cultivate the interpersonal competencies that underpin effective professional practice. They therefore make a meaningful contribution to lifelong learning by supporting the development of communication skills that remain relevant across career stages, sectors, and evolving workplace demands.

CONCLUSION

In an era where digital interactions increasingly replace face-to-face communication, the ability to manage human encounters with professionalism, empathy, and clarity remains essential. Lifelong learning

research highlights that interpersonal communication plays a central role in adults' capacity to function effectively in complex and evolving professional environments (Billett, 2014; Illeris, 2018). Clinical simulations, understood as a structured and emotionally engaging form of serious game, offer a meaningful response to this need by enabling learners to engage with realistic interpersonal challenges in a safe and reflective setting.

The method's emphasis on moment-to-moment interaction, emotional awareness, and responsive communication directly strengthens the interpersonal competencies that underpin effective collaboration, conflict management, and learner support in contemporary workplaces.

The successful use of clinical simulations in fields such as medical education, teacher training, and faculty development demonstrates their value in cultivating transferable communication skills. Yet their potential within broader lifelong learning contexts is still far from fully realised. As workplaces become more diverse, service-oriented, and interaction-driven, there is growing relevance for simulation-based learning in areas such as leadership development, customer-facing professions, and vocational training.

Further exploration is needed to understand how clinical simulations can be adapted to the varied demands of adult learners across sectors and career stages. Institutions and practitioners are encouraged to consider integrating this method into their professional development practices, thereby expanding opportunities for adults to practice, reflect, and strengthen their interpersonal communication skills in meaningful and realistic contexts.

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