

# TRAINING FUTURE EMPLOYMENT SERVICE PRACTITIONERS IN CONDUCTING SIMULATED JOB INTERVIEWS THROUGH IMMERSIVE VIRTUAL REALITY: A FEASIBILITY STUDY

## FORMARE I FUTURI OPERATORI DEI SERVIZI PER IL LAVORO ALLA CONDUZIONE DI COLLOQUI SIMULATI IN REALTÀ VIRTUALE IMMERSIVA: UNO STUDIO DI FATTIBILITÀ



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### ABSTRACT

The study analyzes the feasibility of a university workshop for prospective employment service providers in administering simulated immersive virtual reality (IVR) interviews. Phenomenological analysis of post-simulation interviews with 18 female students, interpreted with Bowen's (2009) framework and the literature on IVR and situated learning, shows good feasibility, with recommendations for calibrated integration into educational pathways.

Lo studio analizza la fattibilità di un percorso laboratoriale universitario per futuri operatori dei servizi per il lavoro nella gestione di colloqui simulati in realtà virtuale immersiva (RVI). Dall'analisi fenomenologica delle interviste post-simulazione a 18 studentesse, interpretata con il framework di Bowen (2009) e la letteratura su IVR e apprendimento situato, emerge una buona fattibilità, con raccomandazioni per un'integrazione calibrata nei percorsi educativi.

### KEYWORDS

Immersive virtual reality, job interview, simulation, university, feasibility

Realtà virtuale immersiva, colloquio di lavoro, simulazione, università, fattibilità

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## 1. Introduction

The complexity of the training-to-work transition requires that educational settings promote communication, interpersonal, and identity skills. These skills are essential for dealing with high-exposure professional situations such as job interviews, which are often critical for young people with social anxiety. This transition is a systemic challenge involving educational institutions, employment services, and active labour policies.

In this context, the literature recognizes immersive virtual reality (IVR) as having relevant training potential as a protected environment for exercising soft skills in situations of high communicative exposure. IVR fosters cognitive engagement, emotional activation, and anxiety regulation (Makransky & Petersen, 2021; Radianti et al., 2020), as illustrated by the Cognitive Affective Model of Immersive Learning (CAMIL) model, which clarifies its role in meaningful processing. The collaborative extension of this model, TICOL (Theory of Immersive Collaborative Learning), emphasizes the value of peer interactions in simulated environments (Makransky & Petersen, 2023). Thus, studies on the use of IVR to develop interpersonal and communication skills in professional settings, especially in higher education and in reducing social anxiety, are multiplying (Radianti et al., 2020; Shah et al., 2024; Dubiel et al., 2025). However, the use of IVR in trainer training remains little explored, especially in school-to-work settings, where technical and pedagogical dimensions need to be integrated. In this direction, several authors recall the urgency of overcoming technicalistic approaches and promoting environments that foster reflexivity and critical sense (Radianti et al., 2020). In addition, the conditions that make the integration of IVR into pathways designed for interviewers feasible, acceptable and sustainable remain unclear. Research focuses mainly on candidates, neglecting the perspective of recruiters. Simulations in VR aim to reduce anxiety (Luo et al., 2024), boost confidence (McGivney et al., 2024), improve performance (Ueda et al., 2024) or mitigate discriminatory bias (Beti et al., 2019), but rarely develop reflective pathways for those taking on the evaluative role.

The integration of IVR in educational settings requires the training of practitioners beyond technical use to include the design and instructional management of immersive experiences. The literature highlights critical issues related to accessibility, sustainability and ethical implications (Skulmowski, 2023), highlighting the need to construct meaningful scenarios, facilitate engagement and support post-simulation reflection (Shah et al., 2024). The study adopts an integrated constructivist perspective (Mason, 2006), in which the simulative environment is

conceived as a generative space for reflective and interactional processes. Consistently, the model of Bowen et al. (2009), recently extended to the educational domain (Juberg et al., 2023), guides the analysis of the formative feasibility of IVR through a qualitative survey based on post-simulation interviews.

This study investigates the feasibility of a university workshop targeting future employment service workers, focusing on IVR interview simulations and reflective devices, aiming to develop communication, meta reflexive and design skills while promoting an educational and transformative use of technology. The following paragraphs will present the theoretical framework and review of existing studies, the laboratory course and research design, the data collected limitations, and educational, professional, and design implications.

## **2. The theoretical framework**

This study is situated within an integrated constructivist perspective (Mason, 2006), which interprets simulations in IVR as complex educational practices with high evaluative, symbolic and emotional density. The focus is on the educational experience of practitioners, the processes of meaning-making, educational awareness, and critical reflection that are activated in designing and conducting simulations. The framework is divided into five interdependent axes: communicative, relating to discursive strategies (Goffman, 1959); emotional, focusing on emotions and communicative vulnerabilities (Heimberg et al., 2014); formative, conceiving the simulated interview as a reflective and transformative experience (Lave & Wenger, 1991); symbolic, interpreting IVR as an epistemic and identity environment (Makransky & Petersen, 2021); and professional, focusing on pedagogical skills. The interpretation of IVR as a transactional environment (Dewey, 1938; Bruner, 1990) and the multi-angular model (Anfara & Mertz, 2015) avoids reductionism and enhances transformative potential. The following paragraphs elaborate on each axis to explore the training experience of practitioners in running simulations in IVR.

### **2.1. The job interview as a practice with high communicative and evaluative density**

The job interview, a structured interaction to assess a candidate's skills, motivation and suitability (Macan, 2009), is a highly communicative and evaluative institutional practice, intertwining cognitive, emotional, relational and symbolic dimensions.

The term *job interview* prevails in the literature, but *employment*, *selection*, *recruitment* and *hiring interview* are also used, with different procedural nuances (Dipboye et al., 2012). In addition to selection, the interview is a space of regulated interaction where representations of competence, reliability and suitability are co-constructed through situated discursive strategies (Roulin et al., 2014). From this perspective, a performative event (Goffman, 1959) requires strategic storytelling, impression management, and adaptation to implicit norms in an asymmetric context. Its properties include situated dialogic exchange (Levashina et al., 2013); construction of the self through narrative; evaluation of manifest and weak signals (Campion et al., 1997); emotional regulation as a key competence (Dipboye et al., 2012); and the role of implicit expectations. The interview is an identity negotiation: the candidate not only demonstrates competence but also legitimizes access to the professional community by mobilizing coherent discursive repertoires, adapting to organizational codes, and impression management (Roulin et al., 2014), constructing a credible and culturally conforming identity.

## **2.2 Social anxiety, shyness and sensitivity to rejection: obstacles to communicative effectiveness**

In addition to cognitive and discursive skills, participating effectively in an interview requires appropriate emotional regulation, which is crucial in contexts with high symbolic and evaluative exposure. Social anxiety, shyness, and sensitivity to rejection impair communicative performance, affecting self-efficacy, engagement, and impression management (Heimberg et al., 2014). While not clinical, these dispositional conditions profoundly affect the experience and ability to deal with evaluative interactions. Shyness is social inhibition in new or evaluative contexts (Cheek & Buss, 1981; Carducci, 2009); social anxiety is a persistent fear of judgment and embarrassment, with avoidance and interactional impairment (APA, 2013; Leary, 1983); rejection sensitivity is a predisposition to perceive ambiguous signals as rejection, with strong emotional reactions (Downey & Feldman, 1996). These conditions cause low self-efficacy, rumination, discursive inhibition, and emotional reactivity (Bandura, 1997; Leary, 1983; Kaplan et al., 2015). IVR emerges as a resource to support such vulnerabilities by modulating exposure, grading complexity, and integrating devices for metacognitive reflection and reinforcing self-efficacy (Oliveira et al., 2024). It is critical that IVR environments combine technical solutions and pedagogical strategies to promote emotional regulation and professional identity in safe, progressive, and reflective contexts.

### **2.3. Role play as a reflective and situated training strategy**

Role play is a training strategy based on intentionally simulating roles and interactions in professional, social or educational contexts, designed to promote situated learning and identity development (Heinrich, 2017). It is not simply a technical exercise but a reflective and transformative practice consistent with the idea that knowledge emerges from participation in real practices. At the formative level, it allows for experiencing multiple perspectives, reflecting on emotions and strategies, building agency through roles, training in interactional uncertainty, and making implicit communicative scripts visible. These characteristics make it particularly effective in complex educational contexts, where it is essential to integrate cognitive, emotional and relational skills. In simulated job interview training, role play allows one to deal with interactional complexity, exercise emotional regulation, negotiate identity positioning, and develop soft skills (Kostiainen et al., 2018). It must be accompanied by reflective debriefings that facilitate critical awareness to realise its full transformative potential. Integration in IVR, technology that creates interactive three-dimensional environments (Makransky & Petersen, 2021), enhances immersion, exposure graduation, self-observation and metacognition. Immersive role play thus becomes a methodological bridge between simulated experience and transformative learning, helpful in training advanced pedagogical skills in future employment services workers.

### **2.4 Immersive virtual reality as an environment for progressive and controlled simulation**

IVR is an innovative technology and an epistemic environment that supports experiential, reflective, and transformative learning (Mulders et al., 2020; Makransky & Petersen, 2021). Defined as technology that enables interaction in three-dimensional computer-generated environments, it generates multisensory experiences with high intensity of presence and engagement (Slater & Wilbur, 1997). These characteristics make it suitable for reproducing, grading, and controlling high communicative and evaluative density contexts, such as simulated interviews. The literature shows that IVR allows for progressively modulating the complexity of situations regulating environmental variables to foster repetition and critical reflection, and supporting emotional regulation and self-efficacy (Zhao et al., 2022). From an epistemological perspective, IVR is a symbolic and relational environment in which meanings are negotiated (Makransky & Petersen, 2023). Learning is developed through situated experiences that integrate sensory, emotional, cognitive, and symbolic dimensions; the virtual environment acts as a learning mediator, and agency emerges from the dynamic interplay between perception, action, and reframing (Slater & Wilbur, 1997). The TICOL and CAMIL

models emphasize the importance of the quality of interaction and the balance between cognitive load and emotional involvement (Makransky & Petersen, 2023). However, McGivney et al. (2024) remind us that anxiety reduction does not guarantee a stable change in self-efficacy, making systematic debriefings and reflexive devices necessary.

## **2.5 Train practitioners in educational management of simulation in IVR**

The enhancement of IVR requires practitioners capable of managing its technical aspects and conducting simulation as a complex educational device. Understood as an interactive three-dimensional environment that generates presence and immersion (Slater & Wilbur, 1997), IVR constitutes an epistemic context in which the co-construction of meaning, agency development, and identity transformation are activated (Makransky & Petersen, 2021). Training requires the integration of pedagogy, technology, and interaction psychology. Conscious management involves design, relational, reflective, and technological skills. The design ones concern the construction of scenarios consistent with training objectives, emotional complexity modulation, and technological affordances. Relational ones concern safe environments, emotional management and support for communicative self-efficacy. Reflective ones include structured briefings and debriefings. Technological ones include effective use of IVR platforms, technical management, and performance analysis (Makransky & Petersen, 2021). Simulation should be understood as situated reflective practice, where emotions, technology, and communication construct meaning (Sfard, 1998; Biesta, 2013). The practitioner facilitates transformative experiences, integrates individual and social dimensions, and promotes critical reflexivity. Design intentionality, progressive control of complexity, systematic debriefing, support for emotional regulation (Downey & Feldman, 1996; Kaplan et al., 2015), and promotion of agency through participatory practices are essential.

## **3. The research design**

This exploratory study (Stebbins, 2001), designed as a feasibility study (Bowen et al., 2009) and inspired by a phenomenological framework (Lincoln & Guba, 1985), examines the technical, pedagogical, and organizational sustainability of integrating IVR into college pathways. The objective is to ascertain whether and how the use of IVR is perceived as relevant, feasible, and meaningful by female students in training to conduct mock job interviews, with attention to didactic, operational, and organizational aspects. The feasibility assessment aims to understand the replicability of the intervention. It is hypothesized that role play in

IVR, integrated into a reflective teaching device, could provide a significant opportunity to develop professional skills in the autonomous management of immersive simulations. At this stage, the intervention focused on the communication skills of future recruiters, which are functional to the ability to facilitate immersive experiences for orientation purposes. The study investigates obstacles and favourable conditions for the technical-organizational practicality of using IVR in training.

### **3.1 The context and participants**

The training device was piloted in a university laboratory with 18 female students (22-50 years old) from Italy in the Master of Science in Continuing Education degree program at the University of Bologna who participated voluntarily. Four reported having had work experience. Fifteen had previously participated in job interviews; three had also served as recruiters. All were familiar with IVR, but only five had practical experience gained in play or cultural settings.

### **3.2 Structure of the workshop**

The workshop was designed to foster critical awareness of the educational use of IVR in orientation contexts. After an introductory phase of about two hours, in which the devices' educational purposes and technical features (Oculus Meta Quest 2) were explained, the 18 participants, divided into pairs, explored generic content in IVR to adapt to immersive perception. Next, the MeetinVR software (Fig.1) was introduced, illustrating its main operational features. After a technical rehearsal with feedback on any physical discomfort, practical guidance on interview management was provided, supported by emailable operational materials. The simulations were organized, avoiding perceptual interference: each student was placed in a separate classroom. Each pair participated in an approximately one-hour session divided into two 10-minute shifts. After each round, participants drafted written reflections. The concluding phase included a debriefing in semi-structured pair interviews geared toward analyzing communication and emotional dynamics and completing two questionnaires to monitor perceived presence and technical discomfort.

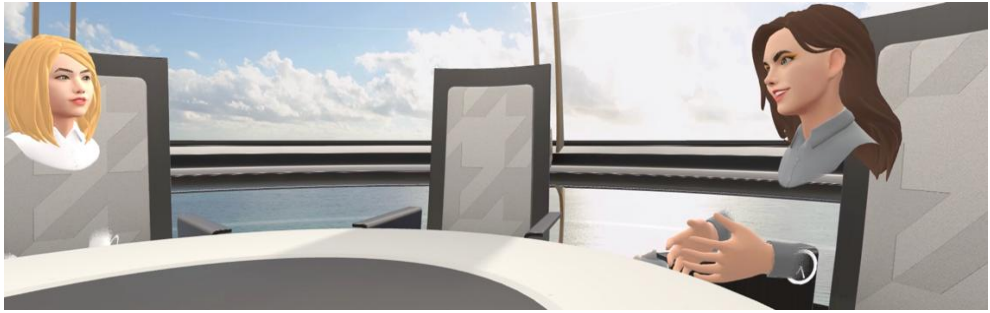


Figure 1- Example of IVR environment visualization within the MeetinVR platform

### 3.3 Data collection and analysis procedures

The study adopts a qualitative interpretive approach based on inductive and situated logic. Data were collected through initial questionnaires (socio-demographic data, knowledge and previous experience on interviewing and IVR), final questionnaires (perceptions of presence and discomfort), post-simulation reflective diaries in the two roles, observational grids on IVR interactions, and semistructured interviews to explore representations and judgments of feasibility, replicability, and usefulness.

This paper focuses on post-simulation interviews, consistent with Maxwell (2013) and Miles, Huberman, and Saldaña (2014), who value intentional source selection for theoretically grounded reading. Data from the questionnaire on perceived presence and discomfort in IVR were also included to assess the intervention's feasibility. The remaining sources will be the subject of future analysis.

Interviews were treated as situated narratives relevant to exploring perceptions and subjective interpretations of the simulation. In addition to their data collection function, they were conceived as hermeneutic devices capable of activating reflexivity and discursive awareness.

Textual analysis was conducted using the reflexive thematic approach (Braun & Clarke, 2021), following an initially inductive, bottom-up coding. After a continuous and recursive comparison between the two authors of this contribution, the codes generated by the participants' expressions were progressively aggregated into intermediate categories and thematic domains. The recursive coding process consisted of three steps: (1) identification of 104 top-level codes, which were subsequently reduced to 53 through conceptual amalgamation; (2) organization of these codes into 32 intermediate thematic categories; and (3) structuring of the categories into 10 general thematic domains (Tab. 1).

Later, these findings were brought into dialogue with Bowen et al.'s (2009) eight conceptual areas, which were used as heuristics to foster a coherent but non-prescriptive interpretive systematization. The study is situated in an interpretive epistemological positioning, according to which intervention feasibility is understood as a situated outcome, reconstructible through participants' subjective narratives and discursive interpretation of their experiences.

The full transcripts of the interviews (n = 9), collected at the end of the dyadic simulations, allowed for the emergence of experiences related to mutual interaction from the participants' statements. Each interview, lasting an average of 30-35 minutes, generated a total corpus of about 14,000 characters (excluding spaces). Each interview included an initial question and spontaneous dialogue, with about 20 turns of words per pair.

MaxQDA software supported the coding and organization of the corpus. Generative tools (ChatGPT) occurred only in the assistive mode for editorial support and linguistic verification without interfering in the analytical phase.

| Thematic Area                                          | Definition                                                                                                                                                                    | Categories                                                                                                                                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Subjective experience within the simulation         | Collects the individual experiences of participants during interaction with the simulation device, considering emotional, cognitive, motivational, and perceptual dimensions. | 1.1 - Emotional management of the experience<br>1.2 - Perception of the simulation context<br>1.3 - Operational skills in managing the interview<br>1.4 - Self-perception as a communicative subject within the simulation |
| 2. Functional evaluation of the experience             | Collects overall judgments aimed at assessing the quality, utility, effectiveness, and potential for improvement of the experience.                                           | 2.1 - Educational value of the simulation<br>2.2 - Perception of immersive effectiveness and realistic limitations<br>2.3 - Factors influencing perceived quality                                                          |
| 3. Relational and communicative dimension              | Management of communication and operational conduction of the simulated interview.                                                                                            | 3.1 - Relevance of nonverbal language<br>3.2 - Perception of the simulation as a partial experience<br>3.3 - Preparatory and training function<br>3.4 - Perceived ambivalences and tensions                                |
| 4. Transferability and applicability of the experience | Investigates the transfer of the simulation to real contexts.                                                                                                                 | 4.1 - Formative and preparatory function<br>4.2 - Adaptability to professional targets<br>4.3 - Sustainability and acceptability<br>4.4 - Transformative effects                                                           |
| 5. Preparation and familiarity with the task           | Indicators related to preparation, prior knowledge, and technological familiarity.                                                                                            | 5.1 - Preparation and emotional management<br>5.2 - Previous experiences<br>5.3 - Technological competences                                                                                                                |
| 6. Criticalities and obstacles in the experience       | Technical, logistical, communicative, or structural difficulties.                                                                                                             | 6.1 - Relational experience<br>6.2 - Technological dimension<br>6.3 - Perception of authenticity<br>6.4 - Temporal and environmental dynamics                                                                              |
| 7. Ethical and value-based reflections                 | Ethical, value-based, or cultural statements.                                                                                                                                 | 7.1 - Usefulness and applicability of technology<br>7.2 - Impacts of technology on the selection process<br>7.3 - Cultural and generational adaptation                                                                     |
| 8. Innovation and skills development                   | Opportunities for learning and educational innovation.                                                                                                                        | 8.1 - Usefulness of simulation<br>8.2 - Openness to innovation                                                                                                                                                             |
| 9. Perception of realism and comparison with reality   | Degree of perceived realism within the simulation.                                                                                                                            | 9.1 - Differences between VR experience and real-life experience<br>9.2 - Role of non-verbal communication                                                                                                                 |
| 10. Contextualization and premises of the experience   | Introductory references and participants' expectations.                                                                                                                       | 10.1 - Previous experiences and orientations<br>10.2 - Preliminary trial as facilitation<br>10.3 - Resistance to virtual reality                                                                                           |

Table 1. Codebook used for coding interview transcripts (excerpt)

Finally, to supplement the feasibility assessment, a composite questionnaire was administered based on two validated instruments: the Igroup Presence Questionnaire (IPQ) (Schubert et al., 2001) to detect perceived presence and the Virtual Reality Neuroscience Questionnaire (Kourtesis et al., 2019) for possible adverse reactions to the use of IVR devices.

The following section presents the qualitative results, articulated according to the thematic domains from the interviews, to return to the complexity of the experiences and representations constructed in the interaction with the immersive environment.

#### **4. The data analysis**

The analysis was designed to capture the complexity of the IVR training experience by combining reflective interpretation of participants' subjective experiences with quantitative data on perceived presence and discomfort. The results follow a consistent thematic and temporal sequence that enhances the experience's evolution. It starts with contextual expectations and premises and then analyzes technological familiarity, experiences in simulation, relational dynamics, perceived realism, transferability of skills, training opportunities, ethical implications, criticality, and quantitative data.

##### **4.1 Contextualization and premises of the experience**

This domain collects preliminary expectations and reflections prior to interaction in IVR. References to experiences with traditional interviews ("I have always had vis-à-vis interviews"; S.17) and openness to innovation ("I like to go by the changes in the world today"; S.17) emerge. Curiosity about technology motivated some ("I was very curious to see the application of these visors"; S.02), while others maintained an exploratory approach. The technical trial was functional and reduced fears. However, reservations emerge about the effect of IVR on interaction and the possibility of authentic communication ("I found it hard to imagine a conversation between two people not really together"; S.02). The introduction of IVR appears complex ("I could not understand the actual introduction of such a technology"; S.02), suggesting the need for further room for reflection.

## **4.2 Preparation and familiarity with the task**

In continuity, the level of prior preparation and technological familiarity, elements that significantly affected the quality of the immersive experience, is analyzed. The scope highlights the role of preparation and technological familiarity in the simulative experience. In addition to practical exercises, previously carried out activities, such as university simulations, were recorded. The environment was perceived as reassuring ("I was calm"; S.15), but unfamiliarity technology was an obstacle ("I had never heard of this virtual reality"; S.02). Prior experience in real interviews was variable ("the interviews I had done before were much faster"; S.08). Digital competence influenced the quality of the experience, while technical training was found to be crucial ("it can help to know about computer systems"; S.03). The pandemic experience fostered cultural acceleration.

## **4.3 Subjective experience in simulation**

After framing the source context, during interaction with the simulative environment, participants reported a reduction in social anxiety, fostered by the perception of protection ("I felt protected but at the same time very free to do what I wanted"; S.05) and positive engagement. Experiences of disorientation ("I felt a bit displaced"; S.12) and performance anxiety in more complex tasks also emerged. The environment was perceived as protective ("Like I was inside a bubble"; S.02) but also as playful ("It felt like participating in a video game"; S.15). Responding as a candidate came more naturally, while the role of recruiter required more cognitive engagement ("You had to be careful what questions to ask"; S.15). Self-perception fluctuated between expressive freedom ("I didn't perceive judgment"; S.02) and detachment from authenticity ("It was like I wasn't really there"; S.03).

## **4.4 Functional evaluation of the experience**

Concerning the functional evaluations attributed to the interaction in IVR, the experience was perceived as highly formative allowing one to practice without the fear of judgment ("an actual simulation without evaluation purposes is important to feel free to make mistakes"; S.14). However, the distance to the real emotional pressure was highlighted ("in a real situation one feels much more the weight of the other's judgment"; S.14), indicating that the emotional impact remains attenuated compared to an authentic work context. Adaptation to the simulative environment showed variability: some reported initial difficulties ("a person who has never tried a visor before finds herself a bit bewildered at first"; S.07), while others described gradual familiarization ("it was a bit alienating at first to be in the visor, then I got used to it"; S.14).

#### **4.5 Relational and communicative dimension**

A specific focus is devoted to the quality of communicative and relational interactions. The absence of nonverbal language was perceived as a significant limitation ("It bothered me a lot not to see the expression in the other person's face"; S.08), which compromised the quality of the interaction and made it difficult to interpret the interlocutor's reactions as well as preventing welcoming gestures ("I couldn't welcome with a handshake"; S.13). Simulation was described as a partial and delaying experience compared to building authentic relationships ("I feel like it goes to postpone even more a moment of relating to people really"; S.13). However, it was also recognized as a useful preparatory phase and an opportunity to focus on the verbal content ("the nonverbal aspect allowed me to stay focused on the words"; S.05). Finally, ambivalent perceptions emerge about the formative value and the loss of the "human side," delineating a central tension between communicative utility and relational impoverishment.

#### **4.6 Perception of realism and comparison with reality**

The relational quality experienced in the simulative environment finds a natural development in the perceived realism of the experience. IVR was considered valuable as an introductory phase ("differences between experience with the visor and that in reality... I would like, like, the first step with the visor"; S.11), useful for gradual progression. However, a significant distance to vis-à-vis interaction was recognized ("it would still be different vis-à-vis than in virtual reality"; S.14). Nonverbal language was perceived as crucial but also connoted by ambivalence ("a disadvantage that is also an advantage...nonverbal language"; S.02). The balance between immersion and relational limits constitutes the central core of reflection.

#### **4.7 Transferability and applicability of experience**

Simulation was evaluated as a valuable training tool for developing communication and emotional skills ("to perhaps not be judged solely on outward appearance or perhaps anxiety or emotion of the moment"; S.09), especially to the benefit of more vulnerable individuals ("a shy person in my opinion really feels penalized in a classic interview"; S.06). However, a distinction emerged based on the type of role: deemed effective for technical or standardizable professions ("If you have to maybe fill an engineering or maybe more technical role, then it can be useful"; S.09), but less suitable for positions with a strong relational component ("whereas if you have to maybe recruit a salesperson or a more people-contact figure, it's more difficult"; S.09). Conditional confidence was expressed toward its use ("In my opinion it can

be a valid support, but it should be regulated"; S.06), accompanied by reservations about too uniform selective modes ("I still have some doubts about the idea that everything is decided by a fixed mode"; S.05). Finally, the use of simulation was associated with a possible risk of homogenization ("We risk that people are selected who are all the same, standardized"; S.09), delineating a tension between innovation and loss of diversity.

#### **4.8 Innovation and skill development**

The analysis continues by reflecting on the educational opportunities offered by technological innovation and the development of new communication, emotional and reflective skills. This area analyzes the learning opportunities offered by simulation and openness to educational innovation. The simulation was perceived as helpful in preparing for interviews ("being able to take a test before doing the interview I think is useful"; S.18), facilitating reflection on one's reactions ("seeing how I respond, how I felt"; S.16). Interaction with technology was valued as a stimulus for changing perspective ("it might help to change the point of view"; S.18) and for a more analytical attitude ("I am thinking a lot about how useful it can be for the user"; S.18). The experience also elicited openness to emerging technologies, such as artificial intelligence ("indeed it is important"; S.03), generating positive emotional states ("I come out in a good mood, so maybe so"; S.12). No significant resistance emerged.

#### **4.9 Ethical and values reflections**

The ethical, social, and cultural implications of adopting virtual reality in educational and selective processes are then addressed. The usefulness of the technology was recognized, but with doubts about its inclusiveness ("maybe there are people with disabilities, I don't know, with fewer resources"; S.10) and its usability in social contexts. In the selective domain, IVR was seen to reduce some visual bias ("with the viewer, you can't know what colour hair I have"; S.04) while potentially shifting attention to other aspects. The risk of new cognitive conditioning was also highlighted ("the recruiter limits the human side but shifts the focus to something else"; S.04). Finally, the theme of cultural adaptation revealed a duality: while openness to innovation emerges, fears of inadequacy and concern about the loss of human interaction remain ("we are much more used to interfacing with technologies than with humans"; S.04).

#### **4.10 Critical issues and obstacles in the experience**

The main critical issues and obstacles experienced in IVR are analyzed as a final qualitative part. Some perceived the virtual mode as reassuring ("to me personally it puts me at ease"; S.07), others complained of an impoverishment of interaction ("I feel like I'm talking to myself"; S.12), particularly due to the absence of nonverbal. On the technical side, IVR was seen as practical but vulnerable ("maybe with connection problems"; S.12), with critical audio-related issues. A sense of prolonged dissociation was also reported ("the longer you are there, the more dissociating you become"; S.12). The authenticity of the experience was found to be controversial: while the formative potential emerges, there is a lack of relational fullness ("there is the humanity of the voice, but the rest of humanity is not there"; S.12). Finally, more time was advocated and the importance of physical context reiterated ("one thing you usually look at is the environment"; S.12).

#### **4.11 Perception of presence and feelings of discomfort**

The last section integrates qualitative data with quantitative results on the perceived presence and physical tolerability of the immersive experience, completing the analytical framework. The results, derived through single-variate analysis, returned an average level of perceived presence of 3.56 on a scale of 1-5. This value suggests that the participants will have a good immersion in the virtual environment. As for feelings of discomfort, the data show a very low incidence: in most cases, participants reported a total absence of symptoms, and when present, they were reported as "very little intense". This declaration confirms the good physical tolerability of the IVR environment adopted in the study.

### **5. Discussion**

The discussion develops from the exploratory objective of the study: to investigate the feasibility of a university training course based on immersive simulation of job interviews. The analysis adopts Bowen et al.'s (2009) framework of eight dimensions (acceptability, demand, implementation, practicability, adaptation, integration, expansion, and effectiveness) as a guide for a systematic, nonrigid reading of the evidence collected. Consistent with the qualitative approach taken, the results were put in dialogue with the theoretical framework to highlight ambivalences and contextual conditions that influence the meaningfulness of the experience.

Overall, the experience was perceived as acceptable: participants recognised its originality and usefulness, with good levels of immersion and absence of

discomfort. However, the lack of nonverbal communication limited the authenticity of the interaction. Potential demand was found to be conditional: interest in IVR emerged mainly for preparatory phases, while standardisation is perceived as a risk in contexts with high relational density.

Implementation was successful, albeit with critical technical issues. The experience allowed for gradual task complexity and observation of participants' responses, consistent with the literature on situated role play; however, effectiveness depends on the technological quality and educational competence of practitioners. Practicability was compatible with available resources, but digital mismatches highlighted the need for more structured introductory phases.

Adaptability was rated positively for roles with low relational intensity and more problematic in settings with a high empathic component. Integration into educational settings was found helpful as an initial step. However, reservations emerged about systematic use in relational educational settings and ethical considerations about inclusiveness, neutrality, and relationship quality. Expansion to other contexts appeared promising, especially for vulnerable individuals, but needs to be carefully evaluated to avoid standardising drifts.

Finally, signs of formative effectiveness were found in communicative awareness, critical reflection, and emotional regulation, consistent with the CAMIL model (Makransky & Petersen, 2021). However, the perceived emotional distance and partial authenticity of the interaction limit the generalizability of the effects. Overall, the data allow a preliminary assessment of the feasibility of the IVR pathway, highlighting promising elements and tensions to be addressed. The approach taken values situated reading of the evidence, avoiding generalisations. The suggested training implications should not be understood as definitive conclusions but as avenues for further development in the design of immersive environments for training.

## **6. Conclusions**

The study results suggest that IVR interview simulation can be, under specific conditions, a training resource for developing communication and reflective skills in future employment service workers. The experience was perceived as engaging and valuable, with a protective effect on anxiety and an enhancement of immersive role-play. However, the absence of nonverbal language and only partial realism raised questions about the relational quality of the interaction. Bowen et al.'s (2009) framework showed positive signs of acceptability, practicability, and

demand and critical issues in integration contexts and margins for expansion. The study's methodological limitations - exploratory nature, small sample, single-source analysis - reduce the transferability of the results. Further study with longitudinal designs, mixed approaches and systematic attention to ethical and pedagogical implications will be needed. The study contributes an initial understanding of the conditions that make the use of IVR in educational settings feasible, laying the groundwork for critical reflection on the role of technology in the construction of complex educational experiences.

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