

An Immersive and Interactive Setting to Practice Emotional Intelligence

<https://doi.org/10.3991/ijac.v16i3.35735>

Barbara Bertagni^{1,2(✉)}, Roxane Gardner^{3,4,5}, Rebecca Minehart^{3,5}, Fernando Salvetti^{1,2}

¹Centro Studi Logos, e-REAL Labs, Turin, Italy

²Logosnet, e-REAL Labs, Lugano, Switzerland and Houston, TX, USA

³Center for Medical Simulation, Boston, MA, USA

⁴Brigham and Women's Hospital, Children's Hospital, Boston, MA, USA

⁵Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA

bertagni@logosnet.org

Abstract—Emotions are an essential part of being human. Whether we experience them deeply, overcontrol them, or let them overwhelm us, emotions have a big influence on our experiences, our performance, and our quality of life. Being emotionally intelligent helps us make better decisions, forge stronger relationships, and overcome challenging situations. To improve emotional intelligence, we designed an immersive setting where participants interact with a variety of situations digitally displayed with fully cognitive and emotional involvement practicing empathy, self-awareness, and self-regulation. We worked at the intersection of thinking and feeling, aimed at increasing participants' awareness about the way the mind works, experimenting the intensity of the emotions in the body and the impact on the behaviors. Scientific evidence from neuroscience shows that, as human beings, we are not passive receivers of sensory input, but our brain constructs meaning actively from sensory inputs, beliefs, past experiences, and culture. In our brains, thoughts and feelings are highly interconnected; we feel what our brain believes, so reflection on emotions is crucial to make sense of our experiences and regulate our feelings. It's not about controlling emotions, but rather about connecting with our emotional life.

Keywords—emotional awareness, empathy, immersive experience

1 Emotional intelligence

Emotional intelligence refers to the ability to recognize and regulate our own emotions, as well as understanding other people's emotions and being able to deal with them empathetically. Being emotionally intelligent doesn't mean that we control and suppress emotions, but rather that we are connected to our emotional life.

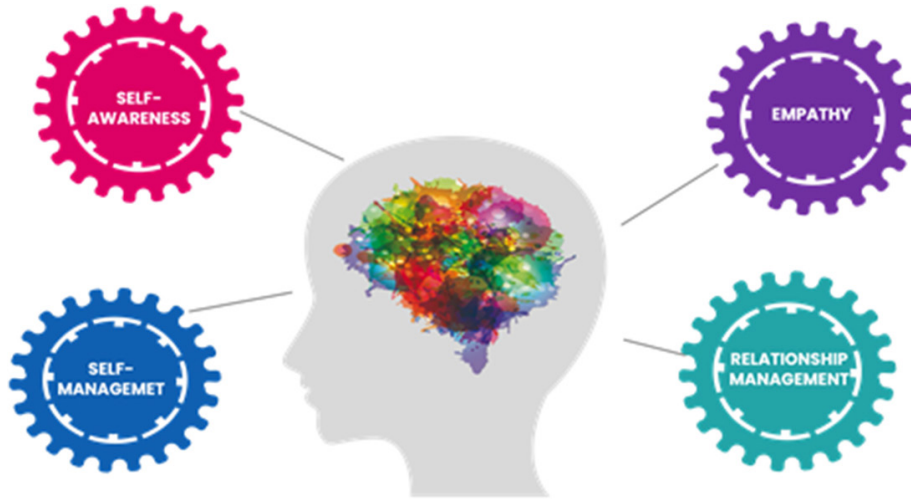


Fig. 1. The four components of emotional intelligence

Emotions are an essential part of being human, and they have a big influence on our experiences, our performance, and our quality of life. Improving our emotional intelligence starts with noticing how we feel in different situations. Neuroscientist Lisa Feldman Barrett [1] performed interesting research, asking over seven hundred test subjects to keep track of their emotional experiences for weeks or months. The results of this research showed that people vary tremendously in how they differentiate their emotional experiences. In a lot of cases, words like “angry,” “sad,” “anxious,” and “afraid” were used interchangeably to express an unpleasant feeling, without distinguish the different shadows of these emotions. The same for pleasant emotions like happiness, calmness, and pride. On the contrary, other people were able to distinguish among different feelings using this ability to describe fine-grained emotional experiences is called Emotional Granularity, and it is what makes us emotionally experts, able to go beyond general expressions like “awesome” and “bad,” using all the shades of emotions: happy, content, thrilled, relaxed, joyful, hopeful, inspired, prideful, angry, afraid, envious, melancholy. At the other side of the spectrum are people who haven’t developed an emotional vocabulary and use “sad” and “mad” interchangeably. If we knew only a few emotional concepts, whenever we experience an emotion or perceive someone else as emotional, we’d categorize only with this broad brush.

A number of scientific studies show that people with higher emotional granularity are more flexible when regulating their emotions, less likely to drink excessively under stress, less likely to react aggressively against someone who has hurt them, and likely to have a more satisfying life.

2 An immersive experience designed to develop emotional granularity

Being aware of our emotions and being able to describe them with their differences, and shadows, plays a strategic role in managing emotions. The key-question is: How can we improve this competence?

We developed a learning experience in the e-REAL immersive lab where learners were actively involved by facing engaging scenarios digitally displayed in a glasses-free mode and by being involved in difficult conversations with avatars that engage them both at a cognitive and at an emotional level.



Fig. 2. The Parkour Extreme scenario

After each experience, we asked participants to describe the emotions they felt, and the answers were usually very different. Someone might say that there was no emotion in the experience, while others can identify multiple emotions. During the debriefing of this experience, one of the most interesting findings is that the same situation makes people feel very different emotions. For instance, in the Parkour Extreme scenario, one participant said that this situation made him/her scared or disappointed, and, at the same time, other participants felt a positive excitement like enthusiasm or amusement. Scenario after scenario, people became more aware of their emotions, and it became clear that it's not a specific situation, but the meaning that we give to such a situation that triggers the emotion. This opens an interesting space of introspection, and the debriefing helps by improving the emotional awareness, along with the extension of the vocabulary available to talk about emotions.

How many emotions can you name? Being able to recognize and name our emotional state accurately is the first step to boosting our emotional intelligence. With this goal, another exercise that we proposed to the participant was exploring the way emotions are expressed and named in different cultures: "Have you ever heard about

‘abhimān’ or ‘awumbuk’ or ‘gezelligheid’?”—these are only a few examples of words used to express a specific feeling in a specific culture. For instance, the Dutch are used to say “gezelligheid” when the rain is muzzling, and the damp rises from the canals. This word describes the feeling to be comforted in a homely place surrounded by good friends. The more we enlarge our vocabulary, exploring emotions, trying to understand how other people describe their emotions and trying to put in words what seems “unspeakable,” the more we gain in emotional intelligence. We are not passive receivers of sensory input, but active constructors of our emotions. We build meaning from sensory inputs, past experiences, shared values, and culture. Learning to name the emotions more accurately helps us be more aware of our emotional life and more effective in our behavior.

3 Practicing empathy

Empathy is the key competence to connecting with other people. It’s the capacity to understand the moods of the people around us, in an immediate way, without any criticism or judgment. It involves the ability to identify with other people’s emotions and situations, even if we are not in agreement with them.

With e-REAL, we help learners practicing empathy by interacting with different virtualized agents within the immersive room. We are used to start working only with audio captions, listening to different voices that are telling different stories, then—as a second stage—we are used to add video captions, and, in the end, specific interactions. Step by step, we are used to provide everyone with some time in order to allow all the participant to really “feel the situation” and deal with it. The results are astonishing: the opportunity to explore the emotional world, immersing oneself in engaging experiences, really improves the self-awareness and the capacity to deal with challenging situations and people.

Because of the COVID-19 pandemic, we have been developing the same program online, within the e-REAL online virtual immersive platform, and the first results are very promising. The feedback that we receive most often is that working with this methodology on the emotions is transformational and life changing.

4 Becoming emotionally intelligent within the e-REAL immersive and interactive setting

One powerful immersive and interactive setting to practice emotional intelligence is through role-playing scenarios in a safe and controlled environment. e-REAL is the setting that we configured and here are some tips about how to create such a setting:

- Identify the emotional intelligence skills you want to focus on: Start by identifying the specific emotional intelligence skills you want to practice, such as self-awareness, self-regulation, empathy, or communication.

- Create realistic scenarios: Design scenarios that simulate real-life situations where emotional intelligence is essential, such as conflicts with colleagues or customers, feedback conversations, or team meetings.
- Assign roles: Assign roles to participants, including the emotional states and goals of each character. For example, one participant may play the role of an angry customer who wants a refund, while another participant plays the role of a sales representative who needs to manage the situation calmly and find a solution.
- Set the stage: Set up the physical environment to match the scenario, such as a store or office setting. Use props and cues to create a realistic atmosphere.
- Facilitate the role-play: Have participants play out the scenario, encouraging them to practice their emotional intelligence skills, such as active listening, asking open-ended questions, and demonstrating empathy.
- Debrief and reflect: After the role-play, facilitate a debrief and reflection session. Ask participants to share their experiences, what they learned, and what they could have done differently.
- Practice, practice, practice: Repeat the process with different scenarios and roles, allowing participants to practice and develop their emotional intelligence skills in a safe and supportive environment.

Overall, to conclude, we can say that an immersive and interactive setting that focuses on emotional intelligence can help individuals improve their ability to recognize, understand, and manage emotions in themselves and others, leading to better communication, stronger relationships, and improved performance.

5 References

- [1] Feldman Barrett, L.: *How Emotions Are Made. The secret life of the brain.* Pan Macmillan, London (2017).
- [2] Watt Smith, T.: *The Book of Human Emotions.* Profile Books, London (2015).
- [3] Goleman, D.: *Emotional Intelligence. Why it can matter more than IQ.* Bantam Books, New York (1995).
- [4] Bachoud-Lévi, A.C., Decety, J., Depraz, N., Pacherie, E., Petit, J.L., Servais, V., Sironi, F.: *L'Empathie.* Odile Jacob, Paris (2004).
- [5] Salvetti, F., Bertagni, B. (Eds.): *Learning 4.0. Advanced Simulation, Immersive Experiences and Artificial Intelligence, Flipped Classrooms, Mentoring and Coaching.* Franco Angeli, Milan (2018).
- [6] Hoffman, H., Vu, D.: *Virtual Reality: Teaching Tool of the 21st Century?* *Acad Med.* 1997; 72: 1076–1081. <https://doi.org/10.1097/00001888-199712000-00018>

6 Authors

Barbara Bertagni, Founder and Managing Partner of Logosnet (Turin, Italy, Lugano, Switzerland, Houston, Texas, USA) and e-REAL (Turin, Italy, Lugano, Switzerland and New York, USA), is a clinical psychologist, an anthropologist and a practical philosopher particularly involved with personal and professional development,

coaching and mentoring, immersive learning and advanced simulation. She works as a sparring partner, a coach and a mentor advising people and organizations across the globe. She is a faculty at the Center for Medical Simulation in Boston (MA, USA). She served for a number of years as Professor in Clinical Psychology and in Psychological Interviews at the University of Turin, as well as Professor of Creative Thinking at the Business School from the University of Turin.

Roxane Gardner is Assistant Professor of Obstetrics and Gynecology at Harvard Medical School, faculty member of the Dept of Ob/Gyn-Brigham & Women's Hospital; and Division of Pediatric & Adolescent Gyn-Boston Children's Hospital. She is an Assistant Healthcare Education-MGH Dept Anesthesia, Critical Care & Pain Management and principal faculty member of the Center for Medical Simulation where she is the CEO and the Senior Director, Clinical Programs; Director, Simulation Fellowship and Visiting Scholars Program; and Co-Director, Labor and Delivery Program. She served for 10 years as the Associate Medical Director – Obstetrics for Patient Safety at CRICO/RMF of the Harvard-affiliated institutions where she facilitated OB patient safety initiatives for Harvard-affiliated Obstetric departments. Perinatal patient safety, simulation and evaluation of teamwork behaviors and performance are the focus of her on-going research activities.

Rebecca Minehart is an obstetric anesthesiologist and the Program Director for the Obstetric Anesthesia Fellowship at Massachusetts General Hospital. In Boston (MA, USA). She is also the Director of the Anesthesia Crisis Courses at the Center for Medical Simulation in Charlestown, MA, as well as an inaugural member of the MGH Learning Laboratory in Boston. Her grant-funded research and speaking interests center around evaluating human factors and teamwork, including communication skills, in simulation and in real-life.

Fernando Salvetti, Founder and Managing Partner of Logosnet (Turin, Italy, Lugano, Switzerland, Houston, Texas, USA) and e-REAL (Turin, Italy, Lugano, Switzerland and New York, USA), is a pioneer in interactive and immersive simulation, new media in education, extended reality (VR, AR, MR, XR) and immersive learning across various sectors and industries including education, healthcare, corporations and international organizations. Over 25 years' experience designing solutions for use in improving organizational behavior, job performance, communication and collaboration, digital mindset—with a strong track record in designing custom solutions that are educationally effective and deliver an engaging user experience and a strong return-on-investment for the client. Adjunct Professor of Communication of Science, University of Milan "Bicocca", Italy. Member of ISSNAF, the Italian Scientists and Scholars in North America Foundation – research area: Communication and Media. Mentor with the Global Thinkers Forum, London – United Kingdom. Faculty at CMS, the Center for Medical Simulation in Boston (MA, USA). Executive Committee Member at TLIC, The Learning Ideas Conference in New York (NY, USA).

This is a revised and extended version of a presentation given at The Learning Ideas Conference 2022, held in New York and online June 15-17, 2022. Article submitted 2022-09-30. Resubmitted 2023-02-25. Final acceptance 2023-03-03. Final version published as submitted by the authors.